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LITERATURE.

Order and Progress. By Frederick Harrison, of Lincoln's Inn. (London: Longmans & Co., 1875.)

EVERYTHING which Mr. Harrison publishes is worth reading. He has great command over language, is very convinced, and is very honest. He has, in particular, the art of accumulating sentences of ridicule on whatever he dislikes or despises, and of varying the phrases in which he expresses his hostility by very ingenious metaphors and analogies. The second part of his work, which he styles "Studies of Crises," is peculiarly characterised by this style of epigrammatic composition, and is, therefore, very effectively written. Of all the essays contained in this second part, that on monarchy is the most ingenious, and that on foreign policy the most suggestive. But there is, perhaps, hardly any part of the work, except the last-named essay, which contains any practical remedies for the political inconveniences which the writer recognises and deplores.

Mr. Harrison, again, is a writer of very strong convictions. He is one of the open advocates of a system which has been generally decried, and is generally unpopular, which has been assailed at once by teachers of scientific method, and by professors of political and social philosophy: to say nothing of a multitude of men who distrust and dislike a person whom they hold to have been a French free-thinker, and whose disciples they believe to be the dupes of a man who announced a crude and pretentious theory, which he promulgated with an offensive arrogance and a morbid vanity. It requires a great deal of courage to defend a new doctrine in this country, especially when the doctrine traverses the habits of popular belief. It is probable that popular belief has lost its hold on a very large number of persons in all classes of society; but it is certain that the vast majority of Englishmen are resolutely silent on what has been, but perhaps, under natural circumstances, always should be, a very engrossing subject. The heresiarchs of our modern theological literature are almost invariably anonymous, for the experiences of avowed sceptics are not reassuring, and Mr. Harrison is reported to be a follower of the most pronounced of modern heresiarchs.

Again, Mr. Harrison has been the courageous advocate and the fearless adviser of the least popular section of English society. He has fought the battle of the trade unions when a little that was true and a great deal that was false was alleged against these labour associations, and has protested against the inequality with which law visits the offences of the capitalist and the labourer. Now trade unions are disliked and feared by all employers, *i.e.*, by nearly all the middle classes, and also by those who believe that prices are raised by the intervention of these organisations. Among the minor causes which have led to the collapse of the Liberal party, not the least was the belief that unionism might be coerced, or at least discouraged, by the Conservatives. But the critics of labour-combinations have never recognised that the machinery of a trade union is the most powerful means for inculcating the greatest social lesson, the subordination of private interest to public duty, and very few of the apologists of the societies acknowledge this fact. Unless I am mistaken, this training of trade unionism is the characteristic which has most powerfully attracted Mr. Harrison to a defence of the system.

And Mr. Harrison is a very honest politician. He is one of the few men of letters who neither insults nor flatters the multitude. He is no partisan of aristocracy, and he has no respect for democracy. He declares himself a republican; but his republicanism has no taint of demagogism. He despises party government; but he has no liking for the expedients which philosophical Liberals have proposed in order to form a counterpoise to the traditional forces of Parliamentary action, or to a Cave which is to neutralise or control them. Politicians who are not partisans are the Ishmaelites of modern society; but they see truths. Partisans who are politicians thrive on the trade they follow; but they live in an atmosphere of falsehood. Mr. Harrison sees the vices of our Parliamentary system with great clearness, and denounces them with great energy. It is to be regretted that he has not pointed out their cure. There is no more unprofitable function than that of a critic who detects a fallacy but who does not solve it—than that of a pathologist who finds out a disease, but who does not disclose its origin or its remedy.

There is no great discovery in the tenet of Comte with which Mr. Harrison prefaces his book, and of which the first part of his book is an expansion. Every publicist, from Plato to John Stuart Mill, has attempted, with varying success, to determine the relations of freedom and order, of authority and public opinion, of ruler and subject. There is no novelty in the position that the secret of good government lies in the fulness with which the magistrate or the legislator postpones interest to duty. Plato, the most mystic of ancient theorists, and Aristotle the most secular thinker of the same epoch agree in this. The tenet is common to Swedenborg and Jeremy Bentham. Perhaps the best and the most suggestive definition given of the good or civilised citizen is that of Aristotle; which declares it to consist in the simultaneous capacity of being ruler and subject. Society without government is a chaos, and government without society is a contradiction.

The representative system, which the genius or character of the English nation has given to modern social life, is the latest born of the three forces which have produced civilisation and which sustain it. The other two are the equal right of all men to the protection of government, and the supremacy of law. The second was the contribution of the Jewish, the third of the Roman people. Representation has effected the unity of races; Christianity, the product of Judaism, by finally extinguishing slavery, has made labour honourable. Rome supplied society with a code, which most cultivated races have adopted, and from which all have borrowed. To be sure it is only in late times that the three principles have worked together, and that the results of the system have shaped modern society. They have not yet exercised their full influence. England suffers from an aristocratical element, which is essentially anti-social, which is profoundly demoralising, which is a survival of barbarism, and which is at the bottom of all those perversions of Parliamentary government which Mr. Harrison recognises and denounces. An aristocracy, be it ecclesiastical or secular, is always plotting against the moral progress of society, and in a greater or less degree against its material progress, and the English aristocracy, while it appears before the public in the fiction of its own Chamber, employs the machinery of the lower to work its own ends as safely as it can.

Everybody knows that the liberties of Europe were well nigh extinguished by the aristocracies of the Middle Ages, and that nations acquiesced in, assisted, or supported monarchical despotism, in order to escape from the intolerable miseries of aristocratical anarchy. In England and France the crisis occurred in the fifteenth century, in Italy it came a century earlier, in Germany two centuries later, in Russia later still. From the accession of Henry VII. to the Restoration, the English nobles were political ciphers, were few and feeble. For a century the burghers and the gentry had neither the inclination nor the interest to resist an authority which, in the hands of the king, had repressed the secular, and humbled the ecclesiastical aristocracy. At last resistance to the royal will began with the small gentry of the Commons. The resistance was slowly organised, and finally came into collision with a false and vindictive king. What had happened before happened then; the king was deposed, as all false and vindictive English monarchs have been. Unluckily this king was not only deposed but formally executed, and the reaction threw the restored monarchy into the hands of the nobles. The number and wealth of these nobles was enormously increased. By making his illegitimate sons dukes, and scattering other peerages broadcast, the second Charles created the order which became at the Revolution the masters of the English Commonwealth, and remained its masters up to the first Reform Bill of 1832. During that long period the most careful scrutiny cannot discover a single legislative or administrative act in which the English aristocracy aided the moral or material interests of the English nation.

It was impossible for the renovated House of Commons to escape all the evils which necessarily ensued from the dishonourable

influences to which it had been subjected. Walpole familiarised the House with bribery, and the Lords, though they hated Walpole, steadily refused to exterminate the powers by which he debauched the Commons. George the Third, to free himself from the trammels of the Whig aristocracy, adopted the same expedient, and the nation was forced to find those funds, in successive grants to the civil list, by which its nominal representatives were purchased, in order to betray national interests and national honour. And yet the social changes which the reformed Parliament achieved within the first decade of its existence prove how much could be done if the instrument of legislation were more thoroughly cleansed, since so much was done when it was partially cleansed. But the question, what would be the effect of a genuine purification of the constituencies, is one the answer to which is too closely connected with modern politics to be discussed in these columns. It is sufficient to say that the chief scandal of the reformed House of Commons is the fact that as an instrument of Government and legislation, the House is rendered almost powerless by the prevalence of sectional interests within its walls, those interests which by being sectional are antisocial. . It may be the case, as Mr. Harrison argues, that self-government in politics is a contradiction, and that all government must be personal; but it is perhaps equally certain that the machinery of responsible or constitutional government, as we term our own political system, has been and is seriously hindered by the exceptional ignorance of the English elector and the selfishness of the average senator.

It is true, as Mr. Harrison says, that if a sick man needs a surgeon it is necessary that a surgeon should perform the operation. In a sense, the administration of public affairs, the draught of legislative measures, and the routine of the public service, must be and will be put into the hands of experts, whose skill may, by a rough analogy, be compared with the surgeon's art. But unless the patient feels that he is sick, or that his diseased limb is a hindrance to him, he will not put himself under the operator's knife. Now there are general difficulties in the way of a nation's discovering its political ailments, and special difficulties in the way of the English people doing so. A practice, or a policy, or a law may inflict enormous injuries on a community. The old corn laws, as all are constrained to admit, did this mischief to England. The legal subtleties which have been developed for the purpose of settling, *i.e.*, for accumulating real estate, with a view, of course, to the concentration of political power in the hands of a certain class, are doing great mischief to the English people now, as nearly every economist of reputation has argued. The insular position of England, and its consequent freedom from many of those risks which continental communities incur from their neighbours and from their own governments, may have stunted the intelligence and narrowed the sympathies of the nation. But a people, if its civilisation does not decay, always discovers some means, however inadequate they may be, and however inferior to the true remedy, for the inconveniences under which it may labour, by which its sickness is disguised from itself. It is the business of the publicist to detect the mischief, to instruct the patient, and to proclaim the remedy. Experience teaches us that when the patient is seriously alarmed, and abundantly convinced of his danger, the remedy against the complaint is rapidly supplied by the politician.

The Parliamentary system of government in England has been so carefully manipulated in the interests of the governing classes, and the material progress of individuals has been so little hindered by the machinery of Government, that it is not remarkable that urgent reforms are not demanded, while it is remarkable that so much is, and has been, done. There is no civilised community where the innocent action of individuals is so little hampered as in England, none in which the mischievous action of individuals is so largely allowed. But, on the other hand, there is no civilised community in which the public good is so systematically ignored as it is in this country. The facts may be illustrated *ad libitum*. The explanation of the facts would carry the writer far beyond the limits of a review. It is sufficient to say, that if the genuine education of the people were effected—a state of things which, every year, seems farther off than ever—and if the machinery of Parliamentary representation were purged of the scandals with which the self-interest of certain anti-social classes has identified it, the mischiefs of which Mr. Harrison complains would be speedily detected, intensely felt, emphatically condemned, and immediately remedied. What is wanted, is not an enlargement of the franchise, or its readjustment, or a tinkering of the Constitution with a view to retaining the power of those interests which have dealt injuriously with the public good (the real motive politicians have in advocating minority representation); but in the development of a genuine sense of social duty, gained by an insight into what is the interest of the whole community, and in providing the means for an adequate reflection of such an opinion. Such a revolution in the machinery of government would soon arm the ruler with efficient powers.

They who comment adversely on the present condition of the Parliamentary system of England are apt not only to ignore what hinders it from doing much good, but also to forget what good it has done. If justice is done it, it must be allowed to have been the chief, if not the only, agent of that measure of civilisation which we at present enjoy, however much that may fall short of what could have been effected. Had it not been for this institution, any invention in science and art could have been, and assuredly would have been, turned to the purposes of a degrading despotism. It may be allowed that the condition of many who live by the labour of their hands is a scandal to humanity, and a disgrace to our particular society. But it is certain that the material condition of the poorest has been greatly bettered by legislation during the last century, and it is equally certain that the change is due to Parliamentary action, for no one has ever seen, and no one ever will see, a really beneficent despot. The English nation is scandalously under-educated, but a century ago it was utterly untrained in anything but the art of manual labour. Two centuries ago, men were subjected to intolerable wrongs, if they were unwilling to undergo the degradation of professing a belief in what they did not believe. But it is to Parliamentary institutions that we owe the greatest and most enduring victory of civilisation, the removal, namely, of nearly all civil disabilities and the establishment of a nearly complete toleration or equality for all forms of speculative opinion. Let any one compare the state of England, the state of Europe, a century ago, with the facts of the present time, and answer for himself, as he readily may, even from a very superficial study of history, the question—To what is the change due?

But Mr. Harrison's criticism on English public life is frequently just and constantly useful. It is well that men should be told how far their institutions fall short of a very possible and intelligible ideal, even though the criticism may be harsh and angry. It is, however, also necessary to point out whence the mischief arises, and where the remedy lies. It is certainly quite in Mr. Harrison's power to fulfil both these functions. It is the duty of every public man to do so; for though there is only a slight analogy between the life of an individual and that of a political society, it is very possible for a nation to fall back, or at least to be distanced, in the progress of true civilisation.

James E. Thorold Rogers.

Documents of the See of Glasgow.

Liber Protocollorum M. Cuthberti Simonis, Notarii Publici et Scribae Capituli Glasguensis, A.D. 1499-1513, *&c.* Edited by Joseph Bain, F.S.A., and Rev. Charles Rogers, LL.D. (London: Printed for the Grampian Club, 1875.)

The publication of these two volumes is one of the many good results of the commission for the discovery of historical manuscripts. The editors, in their preface, state that the originator of this literary enquiry was Mr. George Harris. Whatever may have been that gentleman's part in advancing this most important undertaking, the credit of suggesting it must certainly be shared with others, to our own knowledge. All honour to those who had the wisdom to predict its usefulness and success. It is to this commission, as we said before, that these volumes are due. In a remote corner in Banffshire Mr. Stevenson unearthed the MSS. which are now before us in print. Their history has been a remarkable one. When the Reformation broke over Scotland, the registers and documents belonging to the see of Glasgow were carried to France by Archbishop Betoun, and there found a place in that asylum which was always open to every wanderer and waif from the sister-kingdom in the north. The same wave of persecution which carried them to France brought them back to Scotland at its ebb, shortly before the commencement of the present century. The *Registrum Vetus Ecclesiae Cathedralis Glasguensis* has already been published by the Bannatyne and Maitland Clubs, and now the Grampian Club

steps in to make the series more complete by issuing the two subsidiary volumes which are on the table before us. We have to thank Messrs. Bain and Rogers for the result of their editorial labours.

We have in these volumes a rental and an act book. The first does not require much remark. It possesses a local interest, and illustrates chiefly the topography and family history of the district. It gives us also some curious evidence as to the tenures under the see of Glasgow. The yearly revenue of the archbishopric seems very inconsiderable, when we compare it with that of many of the English bishops.

We may draw from these volumes some interesting examples of livery and seisin. The next heir to a house and some land receives possession by the handing over to him of earth and stone (ii. 2, 29). A chaplain is made owner of the property belonging to his office by the delivery of a penny, a hasp and a staple (559), which take the place of our door-key, and are unpleasantly suggestive of repairs. A clerk is collated to a benefice, and in token thereof the donor puts his ring on his finger (411, &c.), or his birretta on his head. The mediaeval Archbishops of York used their birretta for the same purpose when they gave away a prebend. Curious also are the methods of investiture upon induction. With us it is still, as a general rule, the delivery of the church door-key, and a spasmodic attempt at ringing the bell. In the diocese of Glasgow we find the following usage. A new vicar received or touched the keys of the church and font, the bell-rope, book, chalice, and ornaments of the altar (330, 339, 384). The greater part of the ceremony took place at the high altar (518) the horn of which, in one instance, is handled by the recipient (511). The parish clerk took possession of his office by receiving the holy water stoup and sprinkler, or, as they are called, "the haly water style and stop" (300). We find him elected by the parochial vote (288), and in another case by the joint action of clergy and laity (288–9, 306). About the year 1530 a Yorkshire parish-clerk says that "he was hired at the throghe ston in the churchyard, and promised on the faith of his bodie he wold be their parishe clerke and serve them as long as he lyved." The churchwardens were soon compelled to put him into the ecclesiastical court for neglecting his work. What an amusing book might be made about our old parish-clerks, of whom there are now but few remaining!

We learn much from these volumes about the constitution of a Scottish cathedral and its bishop. The English mode of electing a bishop obtained at Glasgow. In 1508 we have the king suggesting a candidate for postulation, and his wishes were unanimously obeyed (404). The new prelate takes the customary oaths in the chapter-house "touching his breast, and swearing on the word of an archbishop and of the Holy Gospels" (432). We find the archbishop sitting occasionally in chapter with the members of his cathedral, using them in fact as his council in judicial and diocesan matters. This is as it ought to be. The assent of the chapter was needed, as in England, to his grants and leases, and the archbishop seems to have had some control over the fabric fund of the cathedral (309), and, no doubt, over the capitular property in general, to a certain extent; still he and the chapter had each an independent position, and it is plain to see that the chapter would not allow their diocesan to encroach upon their privileges (509, &c.).

The chapter was called together by the ringing of a bell. Of this body the dean was the president, and next in order came the subdean, precentor, chancellor (who could elect a deputy who stepped into his position), and treasurer; then came a subchantor, a sacrist, and a large number of prebendaries. These prebendaries seem to have had official residences in Glasgow, and presented vicars to their prebendal churches in the country of which they were the rectors themselves. When a canon, or prebendary, was admitted, he placed his folded hands within those of the president of the chapter which enclosed them; and when he took the oath he laid his right hand upon his breast.

The vicars of the cathedral possessed lands and property of their own; but in 1507 they made it over to the subdean on condition that he paid each of them an annual stipend of ten marks (376); in addition to this, each seems to have received something like the same sum from the prebendary of his respective stall (476–7). A choir boy had a stipend of ten marks yearly in addition to his commons (417), and a provision was kindly made by Robert, Archbishop of Glasgow, for six of these boys after their voices were broken (346–7).

It is interesting to trace the connexion between the church and the university. A large endowment was given to the college in 1507 by Archbishop Robert (381-2), who was recognised as its pastor. As in England, the chancellor of the cathedral presents to the grammar schools in the town. There is much in all these arrangements that might be adopted with advantage in any cathedral of the present day.

To pass to a less pleasant subject, we have many illustrations in the act book of the life and manners of the clergy and laity of the period. We shall restrict ourselves to the former, and we cannot say that the picture which we have to paint is an agreeable one. We find one priest breaking into a house by night, and carrying off a damsel whom he refuses to surrender (303). An injured father makes a piteous complaint about the conduct of another (524). The friars, after their fashion, were foremost in every mischief. We find two of them, belonging to the house of Frailfurd (a house of that seldom noticed order which was established for the redemption of Christian captives), absconding, to the great detriment of their superior, and carrying off, with other booty, his official seal, which they would not scruple to use (324). In several instances we find clergymen charged with murder (446, 479, 500); but they were sufferers as well as culprits. In 1503 the parish priest of Corsby was slain (302–3). In 1509 a certain Sir John Kichin was grievously wounded in the church of Sempell during the celebration of mass, a misdemeanour of so grave a character that the offender was remitted to Rome itself for absolution:—

> "For, save alone
> The hand of Christ's high Vicar upon earth,
> A hurt so heinous what may heal?"

There are several notices of pilgrimages in these Acts. The culprit in such cases would have to start in the most lowly and dejected guise.

We have other glimpses of startling and picturesque incidents, with one or two of which these observations must terminate. In 1511 Sir John Leith was daring enough to break into the chapel-royal of Dundonald, and plunder it of the ornaments of the altar and priest (512). We should not like to have been in his shoes, to use a familiar expression, as both King and Church would be equally indignant. There is something in the record which makes us think that the act indicates some opposition to the religious belief of the day. A straw will indicate the direction in which the wind is beginning to blow.

But here is a more startling tale; call it romance if you will. The scene was the abbey of Kilwinning. A person of the name of Forman had set up a claim to the abbacy, which was supported by the Earls of Glencairn and Angus, who wished to make the abbot in possession resign on the promise of a pension. Soon after Palm Sunday (why translate it *after the palm branches*?) 1512, the two earls invested the monastery with an armed force. Old Bell-the-Cat, cautious for once, elected to wait outside at the gate. Glencairn, with sixteen armed men, broke in and reached the hall, where they found the abbot and his monks assembled. Joining hand in hand, they swooped down upon the poor man, who was bold enough to refuse to confer with them. Vexed at his obstinacy, Glencairn threw down his sword and shield and seized him, resisting as much as he could; and while he was holding him, his mail-clad followers were dancing around the abbot with entreaties or threats. But the abbot was bold; he told them that they might as well cut off his head and leave him there, as he would not give way. Irritated at this, Glencairn, like a terrier, seized him again, and dragged him to the gate outside. But it was all in vain. The abbot would make no concession, and the aggressors retired. What the sequel was the record sayeth not.

James Raine.

Snioland, or Iceland, its Jökulls and Fjalls. By William Lord Watts. (London: Longmans & Co., 1875.)

The news which has just arrived from Iceland that Mr. Watts has succeeded in crossing the Vatna Jökull, lends a fresh interest to his account of the plucky but unsuccessful attempt which he made last year. We fear, however, that disappointment awaits those who turn to the pages now before us. The author is an enthusiastic, persevering, and, as events have shown, successful mountaineer, but as a writer he is neither lively nor instructive.

The Vatna Jökull, as is well known, is a vast region of ice and snow which covers an area of some four thousand square miles

in the south-east of Iceland, and which, before this summer, had never been crossed by human foot. When Mr. Watts visited it in 1874, his object was twofold, to cross the Jökull, and to ascertain the position of the unknown volcano which caused the eruptions of 1873. We have endeavoured to make out the route which he followed, but his confused style of narration, and the vagueness of his indications of time and place, make the task difficult. However, we gather that Nupstadr, a little farm on the south-west of the Vatna Jökull, was the base of his operations, and that from this point he travelled for about a day's journey on horseback, though in what precise direction does not appear, and then, having sent back his horses, encamped for the night somewhere near the edge of a glacier. On the morning of August 12 he started on foot with three Icelanders to cross the Jökull. The party travelled for two days and nights, with intervals of rest, over ice and snow, till on the morning of the 14th, when they were encamped on the snow at a height estimated by Mr. Watts as 5,750 feet above the sea-level (*i.e.*, the same height as the summit of Mýrdals Jökull), they found that the wind had shifted to an unfavourable quarter, that it was snowing fast, that their stock of provisions was running very short, and, in fact, that there was nothing for it but to return. Under these circumstances, they planted a flagstaff with a Union Jack in the snow, fastened to it a bag containing two coins, and a paper inscribed with their names, the date, and a dull joke, sang "God save the Queen," and started homewards. Their compass had got out of order and was useless, but, by an almost miraculous piece of luck, they succeeded in discovering their own tracks, and thus escaped from the Jökull and eventually returned to Nupstadr in safety. This is really all that Mr. Watts has to tell us, and his expedition, as related by himself, reminds us not a little of that of the potentate who "marched up a hill and then marched down again." That he and his companions probably trudged a considerable distance over ice and snow, and that it was a great mercy that they ever got back, are about the only definite impressions which his story leaves on the mind. Of course it may be that the Vatna Jökull is merely a monotonous, uninteresting plateau, and that there is really nothing to say about it. But if so, why write a book? However, here is Mr. Watts's own summary of the results of his exploration, from which the reader may judge for himself.

"To sum up, this hitherto untrodden Vatna Jökull is a mountainous tract, surmounted by a rolling plateau, containing numerous volcanoes, one or more of which, upon the north, appear to be in a state of pretty constant activity, while numerous others in all probability are paroxysmal, most likely exhibiting all the phenomena characteristic of (if I may be allowed the term) bottled-up volcanoes. This tract, together with Odatha-Hraun, and the centre of Iceland with its numerous mountains, is a new volume of nature, the first leaf of which has only just been cut, but whose secluded fastnesses will amply repay investigation."

The leaf may be cut, but so far as the book now before us is concerned, it unfortunately remains a blank, for neither the narrative nor the map which accompanies it, inscribed though the latter be with the names of two new mountains, tells us anything really new about the Vatna Jökull. We had almost forgotten the volcano of 1873. Mr. Watts did not reach it, did not even see it, but then he is quite positive that he smelt it. At least one day, when the wind was blowing pretty strongly from the NNE. the party were distinctly conscious of an unpleasant smell, and if this did not come from the volcano, whence can it have come? Guided by these olfactory and other indications, Mr. Watts would "place the volcano from which the eruption came upon the northern slope of the Vatna Jökull, in a line south of Mödrudalr, in the north of Iceland, not far from the supposed source of the Jökull Sá (*sic*) of the north." If so, it would be near the volcano which on Easter Monday last devastated one of the largest and most fertile valleys in Eastern Iceland, Fljótsdalr, and we shall be glad to know whether Mr. Watts has this year been able to determine the relation between the sources of these eruptions.

Besides attempting the Vatna Jökull, Mr. Watts last year explored the Mýrdals Jökull, part of the snowy range which forms so conspicuous a feature in the scenery of the south coast. Here he and his party spent five or six nights encamped high up on a shoulder of the mountain, much buffeted by the weather, and under circumstances not ameliorated by the fact that one of the Icelanders who accompanied them drank himself to the verge of *delirium tremens* with the methylated spirits which had been intended for their cooking. But their perseverance was finally rewarded by a successful ascent of Mýrdals Jökull, (5,750 ft.) and a sight of the mysterious valley of Kötlugiá. This terrible volcano lurks in an ice-bound chasm among the snowy depths of Mýrdals Jökull; and, as its name denotes, is not a mountain, but a "giá," that is to say, a chasm or rift, being, in fact, "a large lateral crater of the volcano of which Mýrdals and Merker Jökulls are portions." At the time of Mr. Watts's visit it was in a state of quiescence, and his narrative is not sufficiently clear to enable us to make out how far he actually penetrated into the valley of destruction; but at all events he looked down into it, and determines its position to be somewhat to the south-east of that laid down in Olsen's map.

As we have said, Mr. Watts is not successful as a writer. We do not blame him for having found it difficult to describe the scenery of the country which he visited. The task is not an easy one. Those who wish to see it performed with an accuracy, delicacy, and subtlety of delineation which leaves nothing to be desired need only turn to the paper recently contributed by Mr. Bryce to the *Cornhill Magazine*, under the title of "Impressions of Iceland." But literary qualities such as are displayed in Mr. Bryce's article are rare, and we do not complain of their absence from our author's book. What we do complain of is the absence of those humbler qualities which are necessary to make a traveller's journal serviceable as a guide-book even where it does not pretend to be a work of art. His pictures of scenery are so blurred and indistinct that it is impossible to form any notion of the character of the country through which he travelled. And the difficulty in making out what he really did and saw is increased by the loose and slipshod way in which his journal is kept. One trifling but characteristic illustration must suffice. Twice he speaks of starting at 12 A.M., and leaves us in doubt whether the start was made at midnight or at noon, a doubt which, as those who are acquainted with the peculiarities of Iceland in travelling can understand, is not removed by the context. Nor are these defects atoned for by graphic or lively description of incident. If Icelandic scenery is occasionally open to the charge of monotony, Icelandic travel, especially in the more out of the way parts of the island, is rich in incidents, novel, unexpected, and picturesque. No one would guess this from Mr. Watts's journal, which plods on with about as much liveliness as an Icelandic pony after a twenty-four hours' march.

One of the most irritating features of the book is the inaccuracy of the spelling. It is not an exaggeration to say that out of every ten proper names nine are misspelt. In a country where the orthography is fixed, and where almost every place is marked on an excellent map, these blunders are inexcusable. Even the commonest names and words do not escape. Reikiavik is decked with a superfluous letter, and the Icelandic name for "farm" uniformly appears as "boer." Not that the author is always consistent in his blunders. The Oraefa Jökull is sometimes called Orefa, but more often Euriffa, and the same form appears on one page as "Gastoloeker," and almost on the next as "Gastoloeber." A name which is common to two or three of the greatest rivers of Iceland appears as Jökull Sá, which is much as if the author of a handbook to the English lake district were to call one of the principal lakes Ull Swater. Sometimes the author engrafts on his blunder a false derivation. Thus he first spells a well-known river Thorsà, and then tells us that it means Thor's river. If he had merely taken the trouble to look at the map which he has inserted at the end of his volume, he would have found that the real name is Thiorsá, and that it has nothing to do with Thor. Another lucid explanation appears on the very next page. "We crossed," he says, "the river Sola, which takes its name from the Sola (*i.e.*, *Solan forso*)." Whether *Solan forso* is supposed to be Latin for sole or for solan goose, whether it means fish, flesh, or good red herring, we do not know; but as we came to the conclusion that the spelling was probably and the derivation certainly wrong, we have not taken much trouble to investigate the subject. But the crowning illustration of the inaccuracy of the book is to be found on the title-page. If Mr. Watts chose to borrow a synonym for Iceland from the Landnáma Bók, why could he not spell it, as it ought to be spelt, Snaeland?

We forbear to dwell on the grotesque mass of blunders and confusion which Mr. Watts has embodied in his appendix on Icelandic history and literature. He would have done

wisely to avoid a subject about which he knows so little, and on which it was not necessary for him to write.

In his practical hints to travellers about their outfit, he is more at home than in his discourses about Orosius and the "Laug Saugumadur." But even here we do not think that he brings out with sufficient prominence the equestrian character of the outfit which is necessary for Iceland. We should be inclined to add to his list of articles which it is desirable to take, a good English saddle and bridle with their appurtenances, a pair of long and stout riding boots protecting the knee, and, at the risk of appearing luxurious, we would venture to suggest that an English servant accustomed to horses would be a more useful companion to a mountaineer than the best either of native or of Swiss guides. Icelanders are good-natured but not particularly handy, and a traveller's patience is sorely tried by the amount of time which he finds it necessary to bestow personally on packing and unpacking and on looking to his horses' backs, legs and feet.

The book contains some photographs of Icelandic scenery, which, though scattered impartially through the volume, are all, with one exception, taken from the regions of Thingvellir and the Geysirs. Some of them are fair, but the artist would have conveyed almost as good an impression of the "hills behind Geysir" if he had planted his camera in front of a blank wall. C. P. ILBERT.

Passé et Présent: Etude d'Histoire Contemporaine. Par "Memor." (Paris: E. Plon & Cie., 1875.)

THE author of this masterly little pamphlet is the Duc de Gramont, whose object is to impress upon his countrymen the importance of waiving all domestic differences and devoting their united energies to the organisation of the defensive forces of France. He believes that the situation which, in the summer of 1870, made war a political necessity to Prussia may sooner or later be reproduced—is, in fact, tending to reproduce itself at the present moment. France cannot (thinks the Duke) rely upon the moderation or even the good faith of her too powerful neighbour. Her trust must be in Providence, and in the disciplined valour of her sons.

M. de Gramont takes as the text of his discourse a speech delivered by Prince Bismarck in the German Parliament on January 16, 1874. During the sitting of the previous day, Herr von Mallinkrodt (since deceased), had accused the Chancellor of not having always maintained as stoutly as he pretended the inviolability of German territory, portions of which he had been disposed to cede in 1866, in order to obtain the alliance of a foreign Power against Austria. Herr von Schorlemer-Alst further accused him of having, in defiance of international law and honour, endeavoured to excite the Hungarian and Dalmatian regiments in the Austrian army to mutiny. Prince Bismarck, with his usual energy of expression, characterised these statements as audacious falsehoods. The Duc de Gramont, whose language is always that of the drawing-room, and who never, so to say, shouts his opinions, examines the Prince's denial by the light of official documents, and contents himself with observing that there is a name for such affirmations, which, however, he declines to pronounce.

Firstly with respect to the cession of German territory. The phrase Prince Bismarck used was as distinct as the unfortunate one of M. Jules Favre on a different occasion. He had never, he declared, for a moment entertained the idea of yielding so much as a clover-field. The contrary of this assertion can be clearly proved. On March 28, 1866, the Italian Minister for Foreign Affairs wrote to Count Barral, his Envoy at Berlin, that it would be expedient to include the Trentino, or upper valley of the Adige, in the territory which Austria should be required to cede, as being within the natural boundaries of Italy. On March 30 Count Barral telegraphed to his Government as follows:—

"M. Bismarck told me that, the Trentino forming a part of the Germanic Confederation, it was impossible to stipulate beforehand its cession to Italy; but that what could not be done before the war could easily be arranged during or after it, especially by an appeal to the populations. (Signed) BARRAL."

Prince Bismarck might reply that he did not consider a province which was linguistically Italian as a genuine portion of the Fatherland; but there is evidence that he was prepared to make concessions which touched more nearly the honour of the German nation. On June 2 in the same year he held a conversation with the Italian General Govone, which the latter, a man whose word is beyond question, committed to paper. The Prussian Chancellor had been sounding the Emperor Napoleon as to what rectification of frontier would be sufficient to secure the neutrality of France in the coming struggle, and he complained that the Emperor shewed a reluctance to express himself distinctly. "I am," said Prince Bismarck, "much less of a German than a Prussian, and I should have no difficulty in subscribing the cession to France of the whole country comprised between the Rhine and the Moselle, the Palatinate, Oldenburg, a part of the Prussian country, &c."

M. de Gramont deals next with the subject of the Hungarian regiments, and proves, beyond possibility of refutation, from the despatches of Count Usedom, Prussian Minister at Florence in 1866, that Bismarck proposed to foment a rebellion in Hungary and the Slavonic provinces of Austria, and argued (justly enough) that, once the inhabitants were in insurrection, the Hungarian and Croatian regiments in the Austrian army would refuse to fight against the allies of their compatriots. Strange to add, King William's Premier destined Garibaldi for the service in question. That ablest of partisan chiefs might, he conceived, with advantage be placed at the head of a small volunteer force (so as not to weaken the main body of the army), and directed towards the eastern coast of the Adriatic, where he might hope to raise the population, as six years before he had raised all southern Italy. Yet in the campaign of 1870–71 the Prussian generals threatened not to treat Garibaldi as a prisoner of war—or, dropping euphemisms, to shoot him if he fell into their hands—for accepting a regular commission from the French Government.

The Duc de Gramont comments in a spirit of pardonable severity upon some other statements made by Prince Bismarck in the course of the discussion of January 16, 1874, among them the allegation that till the very last moment he was anxious for peace with Austria. "With this view," he declared, "I addressed myself to his Apostolic Majesty, at a time when our troops were already on the march, and I once more tendered proposals which could easily have led to a reconcilation." It is true that the proposals were tendered, but they proceeded from the initiative of the old King, who was still troubled with Legitimist scruples. It was in reference to them that Bismarck observed to General Govone, in the course of the above-mentioned conversation, "Happily these negotiations cannot succeed, and in this manner the King will be better convinced that it is impossible to come to an understanding with Austria."

If Prussian diplomacy was little concerned to keep faith with an enemy, it was equally ready to throw over an ally who had ceased to be useful. "What do we care," said Bismarck at Nikolsburg to the Austrian Commissioners, "for the pretensions of the Italian Plenipotentiaries? What are the Italians to us? I shall not support them; if they refuse to sign, so much the worse for them; they will have to settle matters with you by themselves." In justice to one who, notwithstanding his faults, is the greatest statesman of the age, it must be confessed that his worst sin is to utter aloud what politicians of less courage only venture to think.

In the opinion of the Duc de Gramont, the ecclesiastical legislation of Prussia, and the rigour with which the conscription is enforced in that country, are circumstances fraught with menace to the peace of Europe. They cause a wide-spread feeling of discontent throughout Germany, Catholics and Liberals being equally aggrieved by the one or the other, and the Duke seems to hint that there are not wanting those who sometimes look with a wistful eye towards Vienna, and ask themselves whether Berlin is the natural capital of Germany, and a Prussian Sovereign the only possible head of the Confederation. Should this feeling gain strength, the Duke fears that the Government of the Emperor William may seek another quarrel with France as the readiest means of suppressing any anti-Prussian movements, for, once face to face with their old foe, Germans will forget all minor grievances, and cheerfully submit to the supremacy of the strongest military State.

It is to be regretted that the same sentiment of patriotism does not animate the French people, or at least their leaders. "The year 1870 will remain a blessed year in spite of all our defeats, for having delivered us from the Empire." Thus spoke M. Vitet, deputy to the National Assembly. More deserving of reprobation is a sentence of M. Picard, member of the Government of September 4: "the acquisition of our liberties

is well worth the loss of our provinces." M. de Gramont refrains from asking, as he fairly might, where these "liberties" are to be found. Alsace and Lorraine are certainly lost: the freedom gained in exchange appears to be somewhat unsubstantial.

A graver charge is brought in this pamphlet against French journalism, on which must undoubtedly be laid a share of the responsibility for the disaster of Sedan. For the sake of an increased sale, a respectable journal like the *Temps* was not ashamed to print intelligence regarding the movements of the French generals in the critical last week of August, 1870. The official German history of the war, written under the direction of the general staff, contains a despatch from Moltke to the Crown Prince of Prussia, in which the former announces that he has just received a telegram acquainting him with the news given in the *Temps*. This was on the 25th of the month; the following day a paragraph from the *Siècle* furnished the German commanders with important tidings of the march of MacMahon. It is surprising that General Trochu, who had been named Governor of Paris on the 17th inst., should not have kept stricter watch over the press.

Whether readers agree or not with the general conclusions towards which the pamphlet points, they will find a careful perusal of its pages amply repaid by the detached observations and reflections they will constantly meet, which embody the fruit of much study and a long diplomatic experience. Thus, the Duc de Gramont's residence at Vienna as French ambassador lends especial weight to the foreboding he entertains that Austro-Hungarian dualism would not survive the strain of a war. It is difficult to persuade oneself that an Anglo-Irish dualism would have more success.

The Duke's description of M. Bernhardi, an "agent" of the Prussian Government, is not without a quiet humour of its own. "Il paraît respectable, mais cette première impression s'évanouit dès qu'il s'explique."

E. C. Grenville Murray.

Memorials of Millbank and Chapters in Prison History. By Arthur Griffiths, Captain 63rd Regiment and Deputy-Governor of Millbank Prison. (London: H. S. King & Co., 1875.)

Millbank Prison with its massive walls and gloomy portals is doomed to pass away, since it belongs to a past which we have outgrown, but of which we need not be ashamed; for the prison was planned with earnest thought and liberal outlay, as the first great national experiment for the reformation of criminals, and all honour is due to the zeal, courage and perseverance of those on whom devolved the arduous duty of managing it.

Its annals, now presented to the public, contain in an easy, lively and readable form, information of vital interest to any one who cares to acquaint himself with the history of the treatment of prisoners in England since the days when the horrors of our gaols were unveiled by Howard. As we read in these pages the records of the various plans tried and the frequent failures, we see how great and varied are the difficulties of dealing rightly with the criminal class. We see how terrible a being man is when evil is his good. We see too that, however brutalised by crime, he must still be treated as an intelligent being to be acted on by motives and not by mere force, since it is now proved by experience that the most efficacious means of managing—not to speak of reforming—the convict, is not the multiplying of outward restraints, chains and bolts and prison walls, but the appealing to the principle of self-interest within, which is done by the Mark-system,* the mainspring, as Captain Griffiths calls it, of our present method of dealing with convicts.

Captain Griffiths explains in the short preface how he came to write the book. Casual reference to the prison records led to a fuller examination of them. He found in them much curious information and many strange tales of prison life, which he thought would furnish materials for a small volume; but as he went on his subject grew. He resolved to write a history of Millbank, and this could not be told apart from the history of the penal legislation of our country. Nearly one-half of the second volume, which is not the least interesting part of the book, is occupied with the sad story of our penal settlements in Australia.

The building of Millbank Prison was begun in the summer of 1812, though the project of a national Penitentiary had been before the Government since 1778, when Parliament passed the Act for establishing Penitentiary Houses, which owed its origin to the efforts of Howard and to the circumstance of the war with America closing that outlet for the disposal of our criminal population. Howard was one of the three men commissioned to supervise the erection of the first Government Penitentiary. He found a site which combined the advantages he considered essential—a good water-supply, healthy situation, and nearness to London, so that the Penitentiary might serve as a model for others and have the benefit of the personal attention and frequent inspection of the ablest men of the country. Finding that he could not carry his point as to site, he resigned his post. A long delay now arose from the revival of the system of transportation, for though America was no longer available, Australia was open to us, and thither in 1787 the first batch of convicts was sent.

The influence of Jeremy Bentham, and his offer in 1792 to undertake both the building and management of his famous Panopticon, revived the subject, and it was in fact he who purchased the land which eventually became the site of Millbank Prison. The Panopticon design fell to the ground, and several years passed before the attention of Parliament was again called to the want of penitentiaries. It was then resolved (1812) to commence building, and a committee of managers was appointed, of whom Wilberforce was one.

Captain Griffiths gives at the close of the first chapter a small engraving of the site of Millbank in 1803; this is but one of many illustrations which add to the interest of his book and make the reader familiar with the scenes of his story. Millbank was a low, marshy district by the river side, an outskirt of Pimlico; it derived its name from an old mill, which is marked in a survey made in Queen Elizabeth's reign. The difficulties of building on the insecure, fenny soil, were very great, and not to be overcome without large expenditure. The cost of the whole, when finished, was nearly half a million sterling. The plan of the building may have been suggested by the Panopticon design: there is a circular chapel in the centre, round it a hexagonal space, each side of the hexagon forming the inner wall of six huge pentagons, the whole enclosed by a hexagonal wall.

The managers undertook the work with the best intentions and strong hopes of the fulfilment of their benevolent desires. We need hardly remind the reader that prisons had been primarily intended merely to be safe places of detention; that they had become places of punishment without due provision for the lodging and management of their wretched inmates: hence the evils which Howard exposed. Now a new object was in view—not the punishment only, but the reformation of the offenders was to be attempted. Millbank was, therefore, intended for hopeful subjects—for young persons and those convicted of first offences. But the task was a harder and more complex one than had been anticipated. We read of continual conflicts between ruffianism and authority, of defiant language and defiant acts, until at last the committee petition to have the power of inflicting corporal punishment entrusted to them.

The early history of Millbank is interesting on many accounts. It was like a ship at sea, its life centred in itself, cut off from the great world, and yet watched with deep concern by many of the foremost men of the day,* and suffering from injudicious interference rather than neglect. It was on its trial, and with regard to the reformation of convicts, it did not, and *could* not, according to our author, fulfil the hopes of its founders. For Captain Griffiths—and here we touch on the saddest feature in the book—has little belief in the efficacy of any system to reform the adult criminal.† With them, he says, we begin too late; but not so with the juvenile offenders, and by the agency of school boards and reformatories we may hope to stop the recruiting of the criminal ranks, and to turn the youthful culprits into the paths of honest industry.

In 1831 the increase in the returns of crime since 1817 led to the appointment of a Select Parliamentary Committee. They attributed the evils from which the country

* The Mark-system, devised by Captain Maconochie, measures the length of the prisoner's sentence by labour and good conduct, registered by marks.

* Pitt interested himself in engaging the first matron. He writes thus of her qualifications: "She has learnt how to obey, and since then, having had a numerous school, how to command. She has firmness of character with a compassionate heart, . . . a strong sense of religion, and strict integrity."

† From this opinion many competent to judge entirely dissent, and Captain Griffiths fully recognises the immense power for good which certain men have exercised over the convicts. See his mention of Dr. Browning, the devoted surgeon-manager of several convict ships (vol. ii. p. 216).

was suffering to the too great leniency with which criminals were treated; and in their inspection of Millbank objected to the amount of intercourse permitted between prisoners. Greater separation was consequently enforced, and ere long the system adopted by the managers of Millbank approximated to that practised in Pennsylvania. The kindly rule of Captain Chapman was succeeded by what Captain Griffiths terms "The Chaplain's Reign," which came in with the enforcement of increased isolation. All credit is given to Mr. Whitworth Russel and to his successor Mr. Nihil, who combined the offices of chaplain and governor, for zeal, ability, sincerity, and earnestness; but the wisdom of the plans they adopted may well be called in question. "The incessant religious exercises were more in keeping with a monastery of monks than a gaol of criminals." They did not understand that no outward pressure can change a man, no severity of repression, nor any forcing of moral and religious doctrines upon his mind and memory. It was left for Captain Maconochie to introduce a plan of dealing with convicts which gives a motive whereby the prisoner may regulate himself and be stimulated to good—even if that good be merely industry. The work thus performed has all the advantage in moral effect of free labour over slave labour.

Mr. Nihil, in his earnest efforts to reform the convicts, became increasingly convinced of the necessity of separation, but his zeal carried him too far; and cases of insanity—the inevitable result of the unnatural condition of prolonged isolation—began to occur. Sickness, too, broke out, and brought up the vexed question of the unhealthiness of the site. Attacks, prompted on one occasion at least by political interest, were made on the Penitentiary; and though in the special cases brought forward the accusations were disproved, the time was drawing near when the penitentiary system of Millbank was to give place to wiser methods of managing criminals. In May, 1843, the great and costly experiment of the Penitentiary was pronounced a failure, and it was resolved to put the buildings to another use. Criminals in the first stage of their imprisonment were to be sent there for a few months for the purpose of classification; the juvenile offenders to be passed on to Parkhurst, the most hopeful of the adult convicts to Pentonville, the others to be shipped off from thence for Australia. Transportation was finally given up in 1863, since which time our convicts have been employed on the great Government works at Portland, Dartmoor, and Chatham. But to Pentonville or Millbank the prisoners sentenced to penal servitude are still sent to pass the first period of their sentence, viz., nine months of solitude with hard labour.

We close with a reference to the building which is to replace Millbank, just as the present treatment of the convicts, busily and hopefully employed in its construction, has replaced the system which formerly confined the criminal within the prison walls:—

"Here," writes Captain Griffiths, describing the site at Wormwood Scrubbs, "in close proximity to a large city, a number of convicts have been lodged in a temporary wooden building, supervised only by a few warders, who serve both to direct their labour, and if needs be, to keep them in awe. But there is little need for that; the men are submissive, industrious, easily restrained. Such is the effect of a systematic stringent discipline, kept up to a high pitch by constant watchful supervision. To this these prisoners in a state of semi-freedom cheerfully submit, not alone because they feel that authority is stronger than they are, but because they know they are treated with due consideration, though without weakness, with severity, yet with justice."

Howard, could he revisit us, would rejoice, for, as Captain Griffiths points out, the plan we are pursuing to-day, after a century of experience, is exactly what he prescribed. (See the extract from Howard's *State of Prisons*, quoted vol. i. p. 14.)

M. E. Mayo.

NEW NOVELS.

Healey; a Romance. By Jessie Fothergill. (London: H. S. King & Co., 1875.)

Diamond Cut Diamond. And other Stories. By T. Adolphus Trollope. (London: Chapman & Hall, 1875.)

A Wingless Angel. By J. E. Muddock. (London: Virtue & Co., 1875.)

What will the World say? By Charles Gibbon. (London: Bentley & Son, 1875.)

In that most charming of novelettes, *Wheat and Tares*, a reviewer is made to console himself with the optimistic consideration "how thoroughly nice and right it is that utterly bad books should be written." We have certainly had need of this paradoxical consolation while reading *Healey*, which is probably one of the worst books (we use the superlative thoughtfully and deliberately) ever written. It is not simply dull, or silly, or tasteless. Some of these epithets it by no means deserves. But it is emphatically *bad*. Its plot is improbable, its views are unreal, its ideals of character mischievous, its reflections theatrical. The story is badly constructed, the characters are badly drawn, the language is badly chosen, the descriptions are badly selected, and inserted with bad judgment. And the worst of it is that the authoress is no common young lady—or rather is a remarkable specimen of a class which is rapidly becoming common. She has read all the best books, and has them at her fingers' ends. *The Martyrdom of Man*, and *The Book of Orm*, Thornton on Labour, and *My Beautiful Lady*, are all familiar to her. She can write the most beautiful sentences unsurpassed for nice derangement of epitaphs and courageous divorce of sense from sound. One cannot help chuckling over the ludicrous and quite unconscious parody of a very prevalent style of thought and speech which is presented by such sayings as this: "Our unproved impressions are generally as neatly and orderly arranged in our minds as our other ideas are tentative and variable." The "romance" of *Healey* is but small, and may safely be left for readers to find out if they can. Of the characters one may say something, but not much. There is a heroine who is ugly and ill-tempered; a hero who is handsome, but given to liquor and language of the strongest; another hero of low degree, who is somewhat of a "blameless prig;" and another heroine who rejoices in the name (surprising, perhaps, in a Welsh young lady who must have been born before Mr. Morris let in light upon our darkness) of Thorgerd. There is a general muddle; and the virtuous survivors (the ugly heroine and the blameless prig) quit "this murky little isle" (as the authoress in a graceful spirit calls her fatherland) and seek the congenial soil of Australia. Everybody's conduct is of the most incomprehensible kind, and their language (but especially the language of the ugly heroine) suits their conduct. Some apparent traces of power in the delineation of Lancashire "hands" and their families are probably delusive. At any rate, the authoress appears to be so thoroughly bemused by hasty reading of books, and hastier swallowing of formulas, that we cannot imagine her producing any tolerable work until she has gone through a course of forgetting everything she has read.

Most of the stories which go to make up Mr. T. A. Trollope's two volumes are of considerable age. We can remember at least three of them appearing several years ago in (we think) *All the Year Round*. But, unlike most collections of the kind, "Diamond Cut Diamond" and its attendant tales have a real unity of subject—Italian domestic life—and might very well have found an appropriate title applicable to all the contents of the volumes. The book is—except on one point—harmless enough, but it is difficult to speak of it very enthusiastically. It is written more or less with a purpose—that purpose being to make plain to all readers the exceeding wickedness of the good old times, the dangerous practices of the priesthood, the damnableness of lotteries, and so forth. Any one who likes the cheap and rather stale progressist-philosophy on these matters, of which Dickens was such a persevering preacher, will enjoy "Diamond Cut Diamond." Other people, to return to our excepted point, will, perhaps, be a little disgusted at the vulgarism of style which seems necessarily to accompany this sort of philosophy. For instance:—

"Papa Accoramboni declared himself decidedly in favour of knocking down all that desirable lot, with magnificent hair annexed, lovely eyes, attractive form, brilliant accomplishments, laid on regardless of expense, &c., &c., &c., known by the name and title of Vittoria Accoramboni."

It is almost incredible that an educated Englishman should permit himself to use this vulgar burlesque in connexion with the heroine of one of the masterpieces of English literature. But it is curious, and a little significant, that in nearly a hundred pages devoted to this story there is no hint or allusion which shows us that Mr. Trollope knew that there ever existed such a person as John Webster, or such a play as *Vittoria Corombona*. One cannot help regretting, by the way, that the events recorded in another of Mr. Trollope's historical stories, "The Duchess Veronica," should have happened so late as 1638. Had they occurred but a few years earlier, what a subject would they have made for Webster or Ford!

The author of *A Wingless Angel* is apparently somewhat of a Rip van Winkel:

he has certainly gone back at least ten years for the style and characters of his novel. Many old friends whom we thought dead, or in the last stage of decrepitude, appear in this book as though with renewed youth. There is the mysterious poisoner, who keeps a supply of his wares ready for an emergency in his left cheek; the genial and preternaturally sharp detective; the gruff but virtuous doctor; and many other cheerful veterans. The characters, moreover, in the intervals of poisoning and being poisoned, refresh themselves with quotations from the Latin grammar in the most delightful way. But the book, despite these faded charms, and despite some oddities of language, is not the worst of its kind. It is a pity that it is printed in type which is annoyingly and, for a novel, most injudiciously small.

Mr. Charles Gibbon belongs to an order of craftsmen very different from that among whose ranks the authors of the books just noticed must be placed. His work, as far as we know it, though never exactly first-rate in quality, and often very unequal, is always on the right side of the line—a line which, however narrow, is nowhere more easily perceptible than in novel-writing. At the beginning of his book we are introduced to two girls, Coila Gardyne and Bess Marjoribanks, the niece and daughter of a millionaire coalowner and ironmaster. Both unluckily fix their affections on the same person, Austin Murray, son of a neighbouring doctor. It is pretty obvious that Mr. Gibbon at first intended to centre his interest upon Coila; but he is carried away by his work, and transfers the position of first heroine to Bess. The change does credit to his judgment, though its necessity does not perhaps say much for his certainty of hand. Coila is one of those "gentle" characters who are a very Castle Dangerous and Cape Non to novel-writers. We hardly know an instance in which such a character has been made thoroughly interesting. And the reason of the failure lies within most people's experience. Underlying this apparent "gentleness" there is apt to be found in real life, if the subject be not a mere doll, a most unmanageable and unlovely stubbornness, and a selfishness quite as great in degree, if not the same in kind and objects, as that of less gentle people. Coila is not an exception to her kind, real or feigned. Being informally engaged to Austin, and finding that the engagement is strongly disapproved by her uncle, and that it makes Bess (who is an impulsive young lady) nearly frantic, she suddenly writes a letter to her lover, declaring that nothing will induce her to marry him, a refusal in which she persists, although her uncle "comes round" in the handsomest manner, and every body tries to make matters smooth. These two lovers being left for a time in the well-deserved discomfort of their position (for Austin is nearly as bad as Coila) the interest shifts to Bess and a mysterious Major Kilgour. Their doings we shall leave the reader to discover; they are worth his attention. The way in which Mr. Gibbon warms to his work is characteristic and cheering. At first the Major is a little awkward, and Bess more than a little vulgar. But they soon settle down into a really artistic flirtation with consequences. Mr. Gibbon has imagined the extraordinary fluctuation of Bess's feelings as maiden, wife, supposed widow, and wife again, with remarkable felicity, and has drawn them with great skill. In Major Kilgour he has attempted and attained less, but here too the result is good. It is an excellent and a very rare thing when the interest of a novel decidedly increases as it goes on. And this is the case to a very noticeable extent in *What will the World say?*

George Saintsbury.

CURRENT LITERATURE.

The Eleusinian and Bacchic Mysteries. A Dissertation by Thomas Taylor; edited with Introduction and Notes by Alexander Wilder, M.D. (Trübner.) So much new light has been thrown by recent investigations on the secret cults of the Greek world that Taylor's Dissertation can have little but biographical interest to recommend it. Dr. Wilder, however, seems unaware of this. He is evidently under the impression that Taylor's knowledge on the subject was accurate and sufficiently wide-ranged to justify us in taking him as a guide in these most obscure investigations. There is more than one book of reference in the English tongue, and twenty in German, which should have taught him otherwise. Notwithstanding this, however, we are very much obliged to the editor for his careful reprint of a scarce, and, in its way, a learned book. Taylor's writings are valuable as pictures of a deep and strong but very strangely constituted mind—one that arrived by solitary study of the Greek neo-Platonists at conclusions substantially the same as those of Schelling without ever having read a line of German philosophy. His books have become very scarce in this country, for they were originally issued in very small numbers, and when they occur at sales they are bought up for the American market. We believe no public library in this country has a complete collection. When we last consulted the catalogues, neither the British Museum nor the Bodleian possessed all his volumes. A series of Taylor's works would occupy a considerable space in any ordinary private library, as well as his Plato and Aristotle in fifteen large quartos. He published upwards of forty other volumes, mostly translations of neo-Platonist literature, which had never before been "done" into English. The mere mechanical labour of such an amount of work must have been enormous. It was toil undertaken entirely as a labour of love, by one who began life as an underling in the Sheerness dockyard, and whose highest official position was that of Secretary to the Society of Arts.

Denzil Place. A Story in Verse. By Violet Fane. (Chapman and Hall.) It is difficult to say upon what principle the authoress of *Denzil Place* has chosen the arduous form of blank verse for the medium of a very commonplace story. Far from attempting to elevate her theme by imaginative treatment, she has relied mainly for her effects upon an accumulation of prosaic details and a close adherence to the colloquialism—and at times even to the *argot*—of everyday life. There is, no doubt, a certain kind of reality in the lines we are about to quote, but it is a reality of which Poetry takes no cognisance:—

"Surprised out of his usual sadden'd calm,
He learnt this was the wife Sir John had wed;
Three years ago he read it in the *Times*,
For, tearing once, to light the cigarette
Of an Italian princess, at Sienna,
A scrap of paper, as it met the flame
He, watching absently, read on the slip
The name of what was once his parish church,
Then read Sir John's, and, guessing he was wed,
Tried to read on, but the devouring flame
Had burnt up what had once been 'Constance Leigh.'
He little cared, and turning with a smile
He forthwith lit the fragrant cigarette
Of the Italian princess."

This specimen, however, is outdone by the following query touching the owners of family pearls:—

"Did they—
They or their thriftless, careless handmaidens,
Break all the strings, and let them roll away
Like common beads, under the rugs and chairs,
Being so large and round? *Ah, had they but*
(To use a billiard phrase) had 'legs enough'
To roll a little further—down to me!"

It may be granted that few other lines in the book reach the absurdity of literalism displayed in these extracts; but our examples are not the less indications of that surface truth of narrative which is characteristic of the book. *Denzil Place*, in a word, is prose in shackles, and, though written with earnestness and now and then with picturesqueness, rarely attains that union of fancy and sentiment which is the least that can be demanded of a poet. Imagination, it is true, may often be conveyed by vivid forms of realism; but in such cases the form illustrates the poet's idea—does not preponderate over it. A poem, for instance, may well show how a girl, while expecting her lover, grows weary at the sound of many passing footsteps, none of which gives the echo she longs for. But if with these steps be mingled the cries of itinerant salesmen or the comic ditties of negro minstrels, the sense of reality excited becomes at once eccentric, and stifles emotion instead of expressing it. Writers who deal in verse with the events of modern life should remember that it is easier to imitate the plan of such a work as *Aurora Leigh* than to catch its spirit. The theory of poetry developed in *Denzil Place* is wholly unsound; but we are not without hope that when its writer has freed herself from self-imposed trammels, she may give us a more successful work. In the lyrics scattered through her narrative there are occasional passages of tenderness, poetic grace and musical utterance, which seem to warrant this expectation.

Michael Hummelberger. Eine Biographische Skizze von Adalbert Horawitz. (Berlin, 1875.) In this little *brochure* Dr. Horawitz has attempted to resuscitate the memory of a man of whom few German philologists know more than the name, if even they know as much. Michael Hummelberger has, nevertheless, good claims to the grateful remembrance of his countrymen; for he was one of the most zealous and industrious pioneers and cultivators of classical learning in Germany, and did good service to the early Hellenists by his *Epitome Grammaticae Graecae*, which, however, was not published till after his death, when it issued, in 1533, from the printing press of his friend, the learned Beatus iRhenanus, of Basle. Like this great prince of pr nters and publishers, M. Hummelberger was an indefatigable editor and annotator, a man of great learning for his age, a devoted follower of Erasmus, and the friend of Zuinglius, Pirkheimer, Oekolampad, Melancthon, and others of the Wittenberg school, with all of whom he carried on a more or less intimate correspondence. In the course of a careful examination of some of the treasures of the Imperial Library at Vienna, Dr. Horawitz's attention was drawn to the very large and interesting collection of the letters received and written by Hummelberger, from 1508 till 1527, the year in which he died suddenly at the age of forty. These letters, which are written in Latin, and consist of 174 folio sheets of paper, have undergone various slight mutilations, but they are on the whole in good condition, and they are most valuable and interesting from the light which they throw on the state of learning at the time, on the religious discussions of the day, and the general condition of society in Germany in the early part of the sixteenth century, to which reference is frequently made. Dr. Horawitz's intention of amplifying his present short sketch of Hummelberger and his

correspondence into a more comprehensive work must, therefore, be welcomed with gratitude, and can scarcely fail, if carried out according to his present plan, to give us a valuable contribution to our knowledge of the social and intellectual learning of the great German Reformers.

The Archaeology of the Great Orme's Head. By J. Smith, Jun., Fellow of the Royal Archaeological and Historical Association of Ireland. (Llandudno: B. Woodcock.) Visitors to Llandudno who care about antiquities will do well to buy this little book, which gives an account of Tudno, the patron saint of the town, and describes his church and cradle upon the Head. We opened the book with some curiosity to see whether the author had anything to tell us about the worm, or dragon, who has given his name to the cliff. We were much disappointed to find that he knows nothing of it, and suggests that the name "Orme" is equivalent to "arm," a word that is rarely if ever applied to a promontory. This, apart from its incorrectness, is dreadfully prosaic for an Irish antiquary writing about Wales.

Tourists in search of silvan scenery can scarcely do better in these sunny days than take with them the *New Forest Handbook* (Lyndhurst: J. G. Short), and make acquaintance with the beautiful and interesting district to which it relates. Though sadly shorn of its original dimensions, there is enough of the Forest still left to afford an infinite variety of landscape, and, in spite of railways, there yet lingers about the whole woodland much that is primitive and peculiar. To English artists the New Forest ought to be what Fontainebleau is to their French brethren, and by all classes it deserves to be far better known than it hitherto has been.

Mr. William Longman has republished in a separate form his *Impressions of Madeira*, a paper upon which we commented when it first appeared in *Fraser*. It gives in a very succinct yet pleasant way a great deal of valuable information, and we believe that that which relates to the mountain ranges is not to be found elsewhere. The exploration of these gave Mr. Longman some congenial occupation, and men in health who are compelled to visit the island will thank him for suggesting an escape from the monotony which distinguishes life in Madeira. Editor.

NOTES AND NEWS.

Professor Edward Caird, of Glasgow University, has in preparation a work on *The Philosophy of Kant Explained and Examined.* It will include an historical introduction, and will be published by Mr. Maclehose.

Mr. Robert Brown, of Underwood Park, Paisley, is preparing a *History of the Paisley Grammar School* from its foundation in 1576, and of the other schools of Paisley. Beside a minute description of the endowments granted by King James VI. for the support of the Grammar School, an account will be given of many curious incidents and topics relating to the ancient history of the town. The book will be published by Mr. Gardner, of Paisley.

A History of the Portuguese in Asia and Africa, the materials for which are being collected from original sources, is in progress under the hand of Mr. P. A. Tiele, the Librarian of the University of Leyden, who proposes to follow it up with a *History of the Netherlanders* in the same parts of the globe.

We have received from the Oxford University Press a copy of the smallest Bible ever produced. It is printed on a rough unbleached India paper, of extreme thinness and opacity; is 4½ inches high by 2¾ inches broad, and half an inch in thickness; weighs, bound in limp Morocco leather, less than three and a-half ounces, and can be sent through the post for a penny.

Dean Goulburn's new work, which is now in the press, is a collection of "sermonettes" on the life of the Prophet Samuel. It will be published by Messrs. Rivingtons under the title of *The Child Samuel.*

The Council of the Grampian Club have now in the press a work on *The Priory of Beauly*, by Mr. J. Chisholm-Batten, and *The Royal Letters and Proceedings of the Privy Council, during the Secretaryship of the Earl of Stirling, from* 1626 *to* 1635, preserved in three MS. volumes in the Advocates' Library and General Register House. The Club is anxious to secure new subscribers.

Among other new school books, Messrs. Rivingtons will shortly issue Books I. and II. of Tacitus, with notes by the Rev. W. H. Simcox, and Books III. and IV. of Thucydides, with notes by Mr. G. A. Simcox, both of which will form volumes of the *Catena Classicorum*; and the first volume of the Rev. J. Franck Bright's History of England for public schools, entitled *Mediaeval Monarchy*, extending from the departure of the Romans to the end of the reign of Richard III., in 1485. The volume will contain numerous maps, which will render the use of a separate atlas unnecessary, and the text will be further illustrated by the introduction of genealogical tables of all the great Houses during the reigns of the Edwards, and the wars of the Roses. The second volume, which will treat of "Personal Monarchy," will be issued in December, and the third and concluding volume, "Constitutional Monarchy," is now in preparation. The new volume of Mr. Oscar Browning's series of "Historical Handbooks," *Modern English Law*, by Sir Roland Knyvet Wilson, Bart., is also just ready, and will be published in a few days.

The Rev. D. Silvan Evans, late editor of the *Archaeologia Cambrensis*, has been appointed to the Professorship of Celtic Literature in the University College of Wales.

Messrs. Rivingtons have in preparation for issue during the autumn season the *Life of the late Bishop Gray*, Metropolitan of Africa, in two vols. 8vo; the second and revised edition of Mr. W. E. Scudamore's *Notitia Eucharistica*; a work on the *Rudiments of Theology*, by Canon Norris, of Bristol; and a volume of Notes on the Greek Text of St. Luke's Gospel, for school use, by the Rev. Arthur Carr, of Wellington College.

We are glad to hear that Professor Leo, of Berlin, is engaged on a new Variorum edition of Shakspere. He has a staff of young helpers under him in Germany; but there are many English notes which must escape their notice. Any contributors willing to help in the undertaking should communicate with Professor Leo in Berlin. The work has already made some progress, the Professor having been engaged on it for several years, though it is only within the last two years that he has sought other help.

We have authority for stating that Mr. Kelly, whose name is so widely known in connexion with various Directories, has become the proprietor of *The Upper Ten Thousand*, but he has retained the services, as editor, of the compiler and original editor, Mr. Adam Bisset Thom, whose name is a sufficient guarantee that the work will continue to maintain the high position which it has already taken as one of our most comprehensive and handy books of reference.

Mr. Maclehose will publish shortly a work by Principal Caird on the *Philosophy of Religion*; and a work by Professor Nichol on the *English Language and Literature.*

Among other works in preparation by the same publisher we may mention—a new volume of Miscellaneous Poems by the author of *Olrig Grange*; *Our Lord's Three Raisings from the Dead*, by the Rev. Hugh Macmillan; *Eminent Educationists and their Various Systems of Education*, by Mr. Leitch, Rector of the Normal School, Glasgow; a work on the History of the Clyde, by Mr. James Deas, Engineer of the Clyde Navigation; and a volume of poems by a new poet, Herbert Martyne.

The next session of the New Shakspere Society will probably be opened on October 8, by Mr. James Spedding's "Notes on Mr. Daniel's Theory of the Relation between the First and Second Quartos of *Romeo and Juliet*." This will be followed, at the second meeting, on November 12, by Mr. Richard Simpson's paper on "The Three *Hamlets*." Mr. Grosart has put off his promised paper on "Shakspere's Sonnets" till he can finish his studies of the other sonnet literature of Britain.

A third edition of Mr. Wright's well-known work on *The Celt, the Roman, and the Saxon* (Trübner & Co.) has just been issued. Mr. Wright has not only revised the text throughout, but has made many additions, chiefly arising out of discoveries made since the appearance of the former edition, and among these additions are a considerable number of new illustrative engravings.

The Astronomical Congress, which met recently at Leyden, will hold its next year's meeting at Stockholm.

Jena has been selected by the German Anthropological Society for its next place of meeting. Professor Zittel has been elected president for the next year.

Professor W. D. Whitney has passed a few days in London this week, on his return from the Continent. He sails to-day (Saturday) from Liverpool, and will reach Yale only just in time to begin his lectures there. All his arrangements with Professor Roth for their new edition of the *Athavarveda* are complete. They have a mass of most valuable fresh material for it, and hope soon to be in possession of a MS. far older than the best of those yet in their hands, much superior as that is to any before known.

The veteran Pott is now engaged on a new edition of the works of William von Humboldt, the founder of the science of philology.

Mr. Alexander J. Ellis has nearly finished his book for the Tonic Solfaists on *Pronunciation in Singing.*

Mr. Henry Cromie, who has just completed his *List of Chaucer's Rhymes in the Canterbury Tales*, for the Chaucer Society, has consented, at Mr. Furnivall's request, to compile an index—for the same Society—of all the names of people and places mentioned, and all the subjects treated and alluded to, in the *Canterbury Tales.*

Chaucerians may be glad to see a fresh entry relating to Richard Chaucer, the vintner, father of the poet, though it is only that of a debt of 420*l.* owed and paid to him. A reference in Mr. Black's Index to his Catalogue of the Ashmole MSS. in the Bodleian, enabled Mr. Furnivall to ask for the copy of the entry, which Mr. Walford D. Selby of the Public Record Office has been good enough to make. The entry is crossed out, as that of a paid debt.

"[9 Feb. 1345/6]

Pro Ricardo Chaucier de London'. "Walterus de Chiriton', mercator et ciuis Londonie, recognoscit se debere Ricardo Chaucier, ciui et vinetario Londonie, quadringentas et viginti libras/ vnde soluet ei, die lune (1) in prima septimana quadragesime proximo future, ducentas et viginti libras, et in Octabis (2) Pasche proximo sequentis ducentas libras. Et nisi fecerit, concedit quod predicta pecunia leuetur de terris et catallis suis in ciuitate Londonie et alibi. *Teste Rege* apud Westmonasterium ix. die Februarii.

"§. Soluit, et quietus est, sicut idem Ricardus recognoscit."

[Close Roll. 20 Edw. III. m. 26. d.]

(1) 6 March 1345/6
(2) 16—23 April 1346.

The centenary of Michel Angelo has revived the interest of the Italians in all concerning the great artist. The examination of the judicial archives of Rome has revealed the existence of the

official inventory of his effects, made after his death. Interesting also is the discovery, or rather the deciphering, of an unpublished sonnet, written by him at the back of an original drawing which forms part of the collection of Sir Thomas Lawrence, purchased by the University of Oxford. The drawing represents a study of horses and the sketch of a battle; at the back are inscribed five sonnets and madrigals, four of which have been printed in the last edition of Michel Angelo's works. The fifth is a sonnet which, until now, has baffled every attempt to decipher it. Signor di Tivoli has in the last number of the *Rivista Europea* given an intelligible reading of the original, with the corrections of the author. The sonnet is not one of the best of Michel Angelo's composition; therefore he probably suppressed it in his works. After the example of Petrarch, he was in the habit of polishing and repolishing his poems. He did the same with his artistic compositions, and when one of them appeared to him to have a defect, he mercilessly broke the marble with his chisel.

M. Eugène Hucher, of Le Mans, has just published a post-octavo volume of 534 pages, for 7*s.* 6*d.*, of great interest to students of the Arthur Legends. He gives in it—(1), the two oldest texts of the prose romance of the *Petit Saint Graal*—from the MS. Cangé 4, No. 748 in the National Library, and the MS. of Ambroise Firmin-Didot, both of the thirteenth century—though the texts are unfortunately printed one after the other (pp. 209–276, 279–333), instead of on opposite pages; (2), the thirteenth century prose text of *Perceval or the Quest of the Saint Graal*, pp. 415–505. These short prose texts give the Legends in their earliest forms, before their enlargement into the *Grand Saint Graal*, and are now printed for the first time. The rest of the volume is taken up with accounts of Mr. Henry Huth's MS. of the *Petit Saint Graal* and *Merlin*, other MSS. of the Romances, the editor's essays on the origin of the *Petit Saint Graal*, and proof that Robert de Barron was its author. M. Hucher has sent copies to Trübner's, and Arthurians should secure them at once.

Mr. Thomas D. King, the hon. secretary of the Montreal Branch of the New Shakspere Society, finding that many of his fellow-Canadians think there "is something in" Judge Holmes's theory that Bacon wrote Shakspere's plays, has issued a little post-octavo volume, entitled *Bacon versus Shakspere; a Plea for the Defendant* (Montreal, and Rouse's Point, N.Y.: Lovell Printing and Publishing Company, 1875), which will, we trust, convince the too credulous Canadians that there is nothing in Judge Holmes's book but an elaborate practical joke of the same kind as an essay to prove that Prince Rupert wrote *Milton* would be, or that Cobbett or Tom Paine wrote *Burke*, or, "magnis componere parva," that Lord Derby wrote Mr. Disraeli's wondrous tale of *Alroy*. Entire inability to conceive the nature and mental qualities of either man or his writings is the only state in which the acceptance of Judge Holmes's theory is possible. That such inability exists, arising from natural unsusceptibility or ignorance of Bacon's and Shakspere's works, is true in certain cases. But most buyers of Judge Holmes's book get it as an oddity, as they do Mercade on *Hamlet*, to register how far perverse ingenuity in matters Shaksperian can be carried.

We shall take an early opportunity of reviewing at length Professor Whitney's new work, on *The Life and Growth of Language*. But meanwhile a few remarks on some points which seem to show a modification in the author's former opinions may be of interest.

Morphological similarity is now admitted by him as a satisfactory proof of relationship. When speaking of some of the American languages (p. 259) Professor Whitney says:—"The case seems to be clearly one where the style of structure of a language is more permanent than the material, constituting of itself a satisfactory proof of relationship."

The transition of isolating into agglutinative, and of agglutinative into inflectional languages, is accepted. "The three degrees," we read (p. 277) "lie in a certain line of progress, but, as in all such cases, pass into one another." Morphological classification, however, is here declared to be unsafe, or at least no better than making the character of the hair or the colour of the skin a basis of classification.

Animals are now admitted to possess no language in the proper sense of the word. Thus we read p. 3:—"But these [the dog's bark, the hen's cluck] are not only greatly inferior in their degree to human language; they are also so radically diverse *in kind* from it that the same name cannot justly be applied to both. Language is one of the most marked and conspicuous as well as fundamentally characteristic of the faculties of man." What will Mr. Darwin, jun., say to this? See, however, pp. 281 and 305.

It is no longer denied that methods of framing words may fall into disuse, if they are no longer wanted. Thus, in answer to the question why we no longer have the faculty of forming words by onomatopoeia, Professor Whitney writes, p. 298:—"The office of onomatopoeia was the provision, by the easiest attainable method, of the means of mutual intelligence; in proportion, then, as it became easier to make the same provision by another method, the primitive method went into comparative disuse, as it has ever since continued, though never absolutely unused."

The author's defence of roots as the germs of speech (p. 298) will be read with interest at the present moment; equally so his admission of the possibility of a common origin of all languages (p. 270), and his ranging himself on the side of those who maintain that the classification of languages and the classification of races have nothing in common (p. 271).

NOTES OF TRAVEL.

By the return of H.M.S. *Valorous*, which reached Plymouth on the 29th ult., we have tidings of the Arctic Expedition up to July 27 last. On that day the *Alert* and the *Discovery* were seen steaming down the Waigat (as the straight between Disco Island and the mainland of Greenland is called) on their northward journey. The journey out had been a very rough one, a cyclone having been experienced on June 13, and a heavy gale on June 29, which had rendered useless a whale-boat in each vessel, beside causing other damage. Disco Island was reached by the *Alert* and *Discovery* on July 6 (the *Valorous* having preceded them by two days). The locality offers advantages for studying the geology, glacial phenomena, the effects of frost and ice upon the rocks, the influence of the summer rivers and especially the formation and "habits" of icebergs (to all of these points careful attention was given). About two-thirds of the known *flora* of Greenland were successfully collected, as well as specimens of the *fauna*, which here present a combination of Arctic and sub-Arctic forms. Magnetic observations were taken and a survey of Godhavn was made. The ships, as mentioned above, parted company with the *Valorous* on Saturday, July 17, and expected to be at Upernivik on the 21st. It appears that last winter was very much colder in South Greenland than in North, where it was exceptionally mild until the spring, when there was a check and it turned cold. It is argued that there will thus be a favourable opportunity for navigation late in the season. It is hoped that the *Discovery* will winter in latitude 82° N., or a little further north, while the *Alert* will push on to 84° if possible. If the northern coast of Grinnell Land should prove to trend westward, with no land in sight to the northward, Captain Nares will winter close in-shore and endeavour to push northward in the following summer. Should, however, continuous land be in sight, the *Alert* will be taken this summer to as high a latitude as possible. The sledging work is of great importance, being, as it is, the mainstay of Arctic exploration. The coast of Greenland will be carefully examined, and communication kept up between the two vessels by its means. A relief-ship will be despatched in 1877, but there is good ground for expecting that the two vessels will complete their mission without accident and return home in the autumn either of 1876 or 1877.

The Paris Geographical Society have published in their bulletin for June a new map by the Abbé Petitot, a French missionary, of the country about the course of the Lower Mackenzie River in Arctic North America. Our previous knowledge of this region is derived mainly from the expeditions of Franklin (1820 and 1825), Back (1833), Dease and Simpson (1836), and the Franklin search expeditions under Richardson, Rae and others. Father Petitot has spent no less than eleven years in this dreary and trying country, prosecuting his missionary labours among the Indians and Esquimaux, and journeying to and fro in various directions. The result is shown on his map in a perfect network of routes, which (being himself unprovided with a sufficiency of instruments) he has combined with the points astronomically determined by Franklin. M. Petitot's explorations will form an important contribution to Arctic Geography.

Those interested in the scheme of admitting the Atlantic into the depression of El Juf to the north-west of Timbuktu should read a short article by Dr. Rohlfs in the last number of Petermann's *Geographische Mittheilungen*. Dr. Rohlfs is an acknowledged authority on North-west Africa, and in 1861 he travelled in Morocco and subsequently visited the oases of Draa and Tafilet to the north of El Juf. As it appears from his remarks that *no European* has ever explored this depression, which is known simply from native report, Dr. Rohlfs may fairly claim to know as much about the region under discussion as any of the promoters of the scheme, particularly as the chief promoter, Mr. Donald Mackenzie, is stated never to have been in Africa at all. *In primis* the Doctor says that the really productive parts of Northern Africa begin as far south as 17° latitude, and that this is 250 miles, as the crow flies, from the nearest point of El Juf. The river Belta, said to discharge itself into the Atlantic opposite the Canary Islands, is supposed to offer the best site for the canal which would connect El Juf with the sea; but Dr. Rohlfs remarks that a river, the course of which as one travels inland must necessarily increase in height above the sea, does not *prima facie* appear to be the most suitable place for the excavation of a canal. Mr. Skertchly, who, in a paper written in the *Geographical Magazine* for May last, lent his support to the scheme, has alluded to the enormous mineral and vegetable wealth of Twat and Tafilet; but Dr. Rohlfs says he has never heard of any geological researches having been made there, that the chief formations are chalk and sandstone, and the only product suitable for export is dates. While the Doctor is distinctly of opinion that Mr. Mackenzie's project is based on wrong and insufficient data, he still rejoices at the prospect of an exploring expedition, which, he says, will easily find much useful work to do in the way of geographical discovery.

The following extract from a private letter from an officer on the line of the Indo-European Telegraph may be interesting as further showing the wide extent of the unusual rains that have prevailed during the present summer. The country described is on the east (by north) shores of the Black Sea, Sotscha lying to the north of Suchum Kaleh. Here the effects of Russian conquest are too evident:—

"Remonte, near Sotscha: Aug. 12, 1875.

"Here I am stuck in the woods on the shore between Sotscha and Adler, a very unhealthy place. I get fever every third day at 4 p.m. as regular as clockwork. We have to get everything to eat from either

Sotscha or Adler, as in the whole distance of twenty-eight versts there is not a house or a human being to be seen. Here used to be thickly populated by Circassians, and their gardens and villages remain to this day, but the Russians turned them all out, and now there is no one. The only inhabitants of the forests and mountains are jackals, wolves, bears, and a sort of leopard, wild cats, and hosts of wild boars; so that it is dangerous to go about in the woods here alone without a rifle. It is a wilderness of rank vegetation. . . . The month of August is one of the worst in this part of the world, as it is so very hot in the daytime, and at night so cool, and here is such a very heavy dew every morning that one unaccustomed to it would think it had been raining. . . . Within this last month we have had most tremendous rains; such weather has been unknown for very many years. All rivers and brooks have been enormously high, so that many days we were locked up here between two rivers quite fast, and could get neither one way nor the other. As it is, the whole road now is entirely spoilt, so that it is much heavier than formerly to get along the shore. It is really astonishing to see the mountains of huge rocks which were brought down to the shore last Friday week by what are usually miserable little streams, or else quite dry. The rivers are all washed out at the mouth to such an extent that I have already had to swim through them on horseback several times, and unless a heavy sea comes on and sands them up again, they will remain in this deep state till winter, making it very difficult to get along. The time-honoured 'oldest inhabitant' cannot remember such a rain. One can see that it is very seldom, from the enormous quantity of land and river banks which have been washed away. Our line was down for two days, and no one could get at it to do any repairs. A hill side came sailing down with trees and brushwood, and took away our whole line for about ½ verst."

We regret to learn that private information has been received by the friends of Captain von Homeyer, announcing that, in consequence of long-continued fever and rheumatism, he has been obliged to relinquish all further idea of continuing his explorations. The last hope of the German African Expedition is thus destroyed, and the whole scheme of colonisation on the Loanda coasts will have to be given up. Captain von Homeyer, whose letters are dated March 25, from Pungo Andongo, about 200 miles inland, writes that he had taken every precaution to secure the object of the expedition, and had advanced with a well-provisioned caravan, composed of 164 individuals, including the military leader, Major Marques, Dr. Pogge, and the naturalist, M. Loyaux. When about half-way they had stopped to visit King Dumba Pepe, a prince who had received his education in Loanda, and was more civilised than the majority of his black brethren. Here the Europeans were witnesses of a remarkable Court ceremonial, in which the Premier of the Ministry, which consisted of thirteen dignitaries, performed dances in the presence of the King and his white guests, which were rendered the more absurd by the fact that the great man's servant, standing behind him, imitated every movement of his master's body, in unison with the clanging noise of the musicians. When the Ministerial *pas de deux* was concluded, the King complained to his visitors of the ravages which the smallpox had made among his subjects, and declared himself ready to try vaccination, provided the prejudices of the people could be overcome. It transpired in the course of the interview that the recent death, by this scourge, of the last Prime Minister was universally ascribed to the evil influences of the German expedition, and to remove these unfavourable impressions Major von Homeyer presented the entire Ministry with twenty-five bottles of brandy, which had the highly satisfactory result of securing for the donor the loan of one of the royal riding-oxen, which was regarded as a mark of exceptional condescension and favour. According to the most recent reports, dated June 8, Major von Homeyer had found that he must return with all possible haste to Europe, as there remained no hope of his regaining sufficient strength in the country to prosecute his original schemes of exploration. In the meanwhile his companions, Dr. Pogge, of Mecklenburg, Lieutenant Lux, of the Austrian army, and M. Loyaux, intend to continue their journey to the mythical lands of the Matiambo, and were to join the caravan of an elephant-tusk trader, who was reputed to be a trustworthy man, acquainted with the districts which they wished to visit.

GERMAN LETTER.

(II. *History*, &c.)

Gotha: August 13, 1875.

The excellent compilation, "State History of Modern Times" (Leipzig: Hirzel), is enlarged by a volume rich in contents and deserving of notice, the second section of the second part of the *History of Russia*, by Th. von Bernhardi. The first part contains the history of the Vienna Congress from Russian sources, especially from the papers and collections of Count Toll. The personal relations of the author have put him in possession of peculiarly valuable authorities. He is the son of Bernhardi, the director of a gymnasium at Berlin, author of the *Bambocciaden*, who belonged to the circle of the Romanticists, and married a sister of Tieck. This lady separated from her husband, and married a Herr von Knorring, from the Russian Baltic provinces, in whose house Herr von Bernhardi was brought up, and then married a relation of Count Toll, one of the most cultivated and distinguished of Russian officers, who had, while on the staff, played an important part in the War of Freedom from 1813 to 1815; and who, on the occasion of the rising of the Décembriseurs, spoke the decisive words, "Il faut mitrailler." He was not, however, in favour under the Emperor Nicholas, as his decided disposition was scarcely compatible with that of the Emperor. He therefore lived in retirement, and collected a treasure in the shape of notes and records, of which Herr von Bernhardi became the heir. The latter came to Germany, and wrote a series of fine essays upon Russian history; he then edited Count Toll's *Memoirs*, and was at length induced to undertake Russia for Hirzel's collection. The first part contained a highly interesting and, in many places, new account of the Vienna Congress, along with an excellent description of the battle of Waterloo, in which, in opposition to English statements originating during the later years of Wellington, prominence is given to the German share in the victory. This literary activity was interrupted by the mission of the historian to Italy, charged by the Prussian Foreign Office to report upon the position of military affairs from Florence, where Count Usedom was then minister. During the war of 1866 and in the following years, he had a valuable opportunity for diplomatic activity, and was then entrusted with a mission to Spain, from which he returned shortly before 1870. Since then he has resided as a private individual on his property near Hirschberg, in Silesia, and has again taken up his interrupted work on the State history. The contents of this second part lie, indeed, almost entirely outside the plan of the undertaking: the beginning consists of diffuse meditations on the course of European history, and the abstract of Russian history begins with the foundation of the realm by the Northmen, so that, in short, we have before us a complete history of Russia. But it is just this survey that is written with great knowledge of the material, especially of the little-known Russian original authorities, by a thoroughly liberal-minded man, who is inclined to examine Russian affairs critically, who does full justice to what was good and great in the course pursued by Peter the Great, and in everything is careful, as a foreigner, to preserve his freedom of judgment. We have no book from which we can become so well acquainted with the events down to the reign of Alexander. From the time of Paul onwards, his information becomes quite detailed, and rests upon authorities accessible to but few, and reports on Russian society and the persons in closest attendance on the Emperor, which are in great part new and of the highest interest. The work especially deserves to be known in England at the present time, and, if a foreigner might make a suggestion, it would be this, that the survey of Russian history, at all events, should be made accessible to the English public by means of a translation.

Jacob III., Margrave of Baden and Hochberg, the First Reigning Convert in Germany, by Arthur Kleinschmidt (Frankfort-on-the-Main: Winter), leads us into a remarkable portion of our history. The German people took, at the beginning of the sixteenth century, such an upward flight in religion as they have scarcely taken before or since; the upholder of which was the great reformer Martin Luther. His personality was a firm support to his contemporaries in the doubts and anxieties which necessarily arose after the firm ground of the old creed was forsaken. After his death a decided reaction set in; while the theologians were exhausting themselves in the coarsest and least intellectual disputes, the mass of educated persons came more and more to a general indifference regarding confessional dogmas. Others anxiously sought a resting-place in the confusion, and—this is one of the most remarkable features of the period—found it at last in a return to Catholicism. Thus we see the sons of eager reformers not unfrequently appear as champions of the scarcely conquered party. To these belongs Jacob III., son of the Margrave Carl II. of Baden-Durlach, the zealous Lutheran who had introduced the Reformation in his own country. He was fifteen years old at the time of his father's death in the year 1577, and was brought up by his guardians and his mother in the strictest Lutheranism. He went the very next year to the University of Strassburg, where he became acquainted with the furious disputes which the "Formula Concordiae" had excited in the Lutheran Church; he was, in 1580, in some measure committed to this formula by his guardians, although he himself, like his elder brother, refused the binding signature. After the young prince had completed his unusually good education by a journey to Italy and France, he entered public life at the Reichstag at Augsburg in 1582, and came into familiar intercourse with the Emperor Rudolph, and the other sovereign representatives of Catholicism. Old ties, however, so far held him fast that he made his first campaign among the confederates of the reformed Archbishop Gebhard, of Cologne, and only repeated threats of outlawry induced him to forsake their army. His marriage with Elizabeth von Culenberg-Manderscheid could only encourage him to keep true to the Protestant party. But the influence of his Catholic friends, especially that of William V. of Bavaria, prevailed, and, in 1585, he, with Alexander Farnese, whom he, with youthful enthusiasm, revered as the ideal of a general, took the field on behalf of an opponent of Gebhard's, a Bavarian prince. He also afterwards supported the Duke of Lorraine against the Huguenots, which was not indeed remarkable in a Lutheran, and in 1587 a rumour already went abroad that he was inclined to go over to the Catholic Church. According to the custom of the period, he instituted religious disputations, which were to bring him certainty of belief, whereas, in reality, they only led to increased contention, and could but strengthen his doubts of the stability and permanence of the new doctrine. The spiritual tournament was led on the Catholic side by the learned and combative Pistorius, son of a prominent Protestant theologian, who, being originally a physician and then a jurist, first passed from Lutheranism to Calvinism, and then went over to Catholicism. He had won the confidence of the young prince, and seems to have agreed to represent the Reformation and

its great founders in the most hateful light, and to suggest the infallibility of the ancient Church as the only refuge for the conscience in search of help. The persuasions of his Catholic friends in Bavaria and Austria turned the resolve into action, and the conversion, which Pope Sixtus V. celebrated by a great procession, took place on July 25, 1590. The hopes of the Church were not, indeed, fulfilled. Jacob died in August of the same year, so that the words of the title, "the first reigning convert," are at least superfluous. The conversion of the Margrave of Hochberg has no importance in universal history, but it is an exceedingly characteristic trait of the last half of the sixteenth century. Herr Kleinschmidt has the merit of having for the first time represented the life of this prince impartially, and on the basis of documental research.

In the second part of his *Parisian Conditions during the Revolutionary Period from* 1789–1800 (Jena: Dufft), Professor Adolph Schmidt, of Jena, publishes studies on the social relations, especially on the immorality and the material distress prevalent in Paris, which are of the greatest importance for the internal history of the French Revolution. Under the title, *The People's Years, Historical Sketches by A. Bernstein* (Berlin: F. Duncker), the editor for many years of the Berlin *Volkszeitung* has collected his descriptions of the Revolution in Prussia from 1848–1850. If the author's pronounced democratic views, and especially his bitter judgment on the so-called *Gothaer*, fail to command general assent, his clear temperate account is so much the better worth reading as this period is generally described more from the general German than from the Prussian point of view, by Frankfort rather than Berlin, and at any rate, Bernstein is the representative of a party which, if thrust back for the moment, will yet retain its historical importance. The *Allgemeine Deutsche Biographie*, published by desire of and with the assistance of H. M. the King of Bavaria, Maximilian II., by the historical commission of the Royal Academy of Sciences (Leipzig: Duncker and Humblot) answers in every respect to the expectations awakened by the announcement of this undertaking. According to the preface, which is signed by Freiherr von Liliencron of Munich, and Professor Wegele of Würzburg, the work will comprise twenty volumes. All now living are excluded, which many will doubtless regret, although we must grant to the editors that "justly to define the confines of admission among the living would hardly have been possible." I will only quote the following by way of sample from the long list of contributors: Professor Halm of Munich, Bishop Haneberg of Speyer, Collegiate Provost von Döllinger of Munich, Ferdinand Hiller of Cologne, Gustav Freytag of Leipzig, Privy Councillor Pertz of Berlin, Leopold von Ranke of Berlin, Professor Springer of Leipzig, Professor Holtzmann of Heidelberg, Professor Waitz and Professor Wattenbach of Berlin, Professor Bruhns of Leipzig.

Just as Paul Heyse had with the most loving care and wonderful skill introduced the great Italian Giusti into our literature, we receive from another master in the art of translation a much-needed contribution to a knowledge of French genius: *Dramatic Proverbs by Carmontel and Théodore Leclercq*, translated by Wolf Count Baudissin (Leipzig: Hirzel). The translator belongs to the famous veterans of our literature. Born in the year 1789, he was a witness, as Danish Secretary of Legation at the Swedish Court, of the intrigues by which Bernadotte, Prince of Ponte-Corvo, became Crown Prince of Sweden, and, as such, a confederate of Russia against France. Recalled in the year 1813, he felt himself unable as a German to remain in the service of the Government of Copenhagen owing to its French proclivities, and obtained his release after a short detention. Having, after this, spent some years in Italy, he settled at Dresden, where he became a friend of Ludwig Tieck. He devoted himself especially to the study of the Romance languages, old German, and old English, and was Tieck's assistant when he finished the translation of Shakspere begun by Schlegel. Deeply attached to his friend's excellent daughter Dorothea, he also worked at pieces which did not appear under his own name, but under that of Tieck, who in reality, only undertook the supervision and revision of the translation. He belonged later to a small circle which Prince Johann collected around him, and assisted this learned prince with good advice in his study of Dante. As the owner of the estate of Ranzau in Holstein, he spent his life in dignified leisure. He married the daughter of a banker, a well-known authoress for children, the celebrated "Tante Aurelia," made his house the centre of the literary life of Dresden, and has retained his energy and mental freshness to extreme old age. After his labours on Shakspere he made known the contemporaries and predecessors of the poet by translating them for his Old English Theatre. He then devoted himself to Molière, of whom a satisfactory translation, especially one naturalised on the stage, was not extant. Here also he preserved his skill, particularly in the verse passages. He very rightly acknowledged that Alexandrines have in German an entirely different character from that which they have in French, that here the dramatic action is hindered by the strongly prominent element of sound in the rhythm, and hence with unerring tact he chose the five-footed Iambic as the metre of his translation. Graf Baudissin, in his latest publication, deals with a variety of the drama till now almost unknown in Germany. Of its two representatives, Carmontel distinguishes himself by his antique simplicity and harmless cheerful humour, while in the fine satire, the *esprit*, and the striking characterisation of Leclercq's pieces, we contemplate the peculiar excellences of our neighbours with admiring wonder. These little comedies are above all distinguished by a light, graceful tone, the reproduction of which forms a peculiar merit of the delicate and tasteful translation.

C. ALDENHOVEN.

SELECTED BOOKS.

General Literature and Art.

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HILGENFELD, A. Die Lehninische Weissagung über die Mark Brandenburg, etc. Leipzig: Veit. 2 M. 40 Pf.

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MAZARD, H. A. Musée des antiquités nationales de Saint-Germain-en-Laye. La Céramique. Saint-Germain: Lancelin.

PROCEEDINGS of the Musical Association. First Session, 1874–75. Chappell & Co. 4*s*.

ROTTMANN, C. Italienische Landschaften. 3. Lfg. München und Berlin: Bruckmann. 30 M.

SAINT-ALBIN, A. de. Les Salles-d'armes de Paris. Paris: Glady. 30 fr.

VERSCHELDE, C. Les anciennes maisons de Bruges. Paris: Ducher. 20 fr.

History.

FOURNEL, H. Les Berbers. Etude sur la conquête de l'Afrique par les Arabes, d'après les textes arabes imprimés. T. 1. Paris: Leroux.

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COZZA, G. Dell' antico Codice della Geografia di Strabone, scoperto nei palimsesti della badia di Grottaferrata. Roma.

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CORRESPONDENCE.

M. W. J. VAN EYS'S "ÉTUDE SUR L'ORIGINE ET LA FORMATION DES VERBES AUXILIAIRES BASQUES."

6 Norfolk Terrace, Bayswater: August 30, 1875.

When an argument starts from a faulty premiss, it is quite useless to discuss it without first attacking this premiss itself. Hence I shall, for the present, confine my observations to the verbal noun *eroan*, "carried away." M. van Eys recognises in *eroan* the theme of the Basque terminations with a direct object, and with both a direct and indirect object at once, but he refuses to acknowledge this verbal noun to be composed of the word *joan*, "gone," and the syllable *ra*, or *era*. That *eroan* stands in the same relation to *joan* as *erazo*, "forced," *erantzun*, "answered," *erakusi*, "shown," *erabilli*, "moved," do to *jazo*, "happened," *entzun*, "heard," *ikusi*, "seen," *ibilli*, "walked," is a fact so well established that no discussion upon it is possible, the matter is so evident. The syllable *ra* or the word *era* makes many verbal nouns factitive, and thus *entzun* generates *erantzun* "made heard," or "answered." M. van Eys will see nothing in *eroan* but a contraction of *erazo joan* (*joan erazo* is the only possible order of the words), but it is clear that until he perceives the great error into which he has fallen, scholars will have a perfect right to say that he is completely ignorant of the nature of the factitive verbal noun, which forms the basis of all his terminations with a direct object. For how could *eroan*, formed of *joan* and of *ra* or *era* (a word which means "time," notwithstanding the bold denial of M. van Eys) be admitted to be a mere contraction of *erazo joan*, when *erazo*, formed of *jazo* and of *ra*, is itself only the factitive of *jazo*? In that case we should be constrained to admit, on the reasoning of M. van Eys, that if *eroan* is a contraction of *erazo joan*, *erazo* itself is a contraction of *erazo erazo*, which seems rather strange.

After M. van Eys has learned to form a correct notion of the theme *eroan*, which he takes as the basis of his researches, it may perhaps be useful, only for the sake of those who do not know Basque, to point out the numerous errors of fact and appreciation which he delights in dignifying with the name of "discoveries," as well as his want of correctness, when he cites me without having even read my "Verbe Basque," making me say much which I never asserted, or quoting me in an incomplete and equivocal manner. It is my earnest wish that M. van Eys may be able in time, by means of a much less superficial study of the Basque language and its dialects, to understand that his denials cannot invalidate facts which I have myself repeatedly and completely verified on the spot, from the mouth of Basque peasants, and which agree, almost entirely, with the previous, although less complete, studies of native writers, such as Zavala, Inchauspe, Abbadie, Chaho, Lardizabal, Duvoisin, &c., &c.

L.-L. BONAPARTE.

MOHAMMAD'S CONDEMNATION OF PICTURES.

British Museum: August 28, 1875.

In the notice of the *Gazette des Beaux-Arts* which appeared in the ACADEMY of August 28, the following remark was made on M. Lavoix' article on Mohammadan art:—

"It is generally thought that the followers of the prophet are forbidden in the Koran to make for themselves any graven image, or likeness of God, man, or beast, but the Arab word *ansab*, translated statues, merely applies to certain sacred stones used as altars, and on which oil was poured in sacrifice. It is only in the commentaries on the sacred volume that painters are assigned to perdition if they ventured to represent any animate objects. In spite, however, of this prohibition and the fearful consequences of disobedience, there were many artists at different periods among the Mussulmans who painted the human form, and at last custom becoming stronger than religious prohibition figures were everywhere employed even upon the Arab money, on which portrait heads of the caliphs were often represented. Animals also were often depicted in Moresque decoration."

I have not yet seen M. Lavoix' article, and cannot, therefore, say how far the sentence I have quoted echoes his views. But whether the opinion is that of M. Lavoix or not, the representation of it in the ACADEMY presents several inaccuracies.

In the first place it gives the impression that the general belief that Mohammad sternly condemned the representation of living things is not based upon any speech of the prophet himself, but

merely upon the comments of the editors of the Kur-án. It is quite true that the prophet did not in the Kur-án prohibit pictures, but only the *ansáb* (v. 92), or *things set up to be worshipped* (as all the great lexicons explain the word, not *altars for sacrifice*), that is, idols; and it is also true that the commentators often strain Mohammad's words far beyond their original meaning, and put ideas into his mouth which probably never really entered his head. But it is not true that this prohibition of images or pictures rests only upon the authority of the commentators. The *Sunnah*, or Traditions of Mohammad, rank in the orthodox Muslim estimation only second to the Kur-án (and to Western criticism they must offer an authority almost, if not quite, equal to that of the Kur-án), and among them we find the most decisive evidence of the prophet's abhorrence of pictures. To quote a single instance: in a tradition related by Ibn-'Abbás the prophet is recorded to have said:—

"Every painter [of living things] is in hell-fire; and God will appoint a person for every picture of resurrection, for every picture he shall [illegible] to punish him; and they will punish him [illegible] you must make pictures, make them of trees and [illegible] without souls." The preliminary step [illegible] is understood to be ordering the [illegible] to put a soul in every picture of a living [illegible] he had painted.

That "figures were [illegible] employed even upon the Arab drachm" I most unequivocally deny, for the absence of figures has always been the distinguishing mark of the coins of Mohammadans. The Khalífahs of Damascus, Baghdad, and Cordova, and all the dynasties contemporary with them, entirely abjured images on their currency, with the exception of a few Turkumán chiefs of Syria and some of the Indian dynasties, and here and there an occasional anomaly of a like kind, generally to be traced to Tatar influence. That the "portrait heads of the caliphs were often represented" is a complete mistake. The Khalífeh 'Abd-el-Melik ventured to put his full figure (not portrait head) upon the coinage, and was obliged at once to abandon the heretical practice. Another Khalífeh (El-Mutawekkil) made a similar attempt, and put his image along with a camel on a coin (of which one example alone exists, I believe); but these two unsuccessful examples scarcely justify the word "often" of the sentence I have quoted.

What I have said with regard to the estimate in which the traditions are held applies only to the orthodox party in Islam—the Sunnís. The Shiya'ís have a separate set of traditions, selected from the whole mass; and I do not know whether the prohibition of pictures is contained in their tradition. The fact, however, that Shiya'ís, like the Fawátim of Egypt and the Súfís of Persia, adopt the same simplicity in their coinage as the Sunnís and equally exclude images, seems to point to a similarity in the views of the rival sects on the subject. STANLEY LANE POOLE.

"LISSOM."

52 Thornhill Road, Barnsbury, N.: August 28, 1875.

It is due to Mr. Porson to mention that in his *South Worcestershire Glossary* he did not give *lightsome* as the etymology of *lissom*, but as its dialectal meaning; the doubt expressed referred (as will be seen on looking at the notice) to the latter point only, the former having, as Mr. Skeat says, long been well ascertained.

Mr. Skeat's caution to amateur etymologists, not to waste people's time and make themselves ridiculous by practising the science without possessing the necessary preliminary knowledge, is only too much wanted. HENRY NICOL.

SHAKSPERE AND RICHARD III.

3 St. George's Square, N.W.

Courtenay, in his *Commentaries on the Historical Plays of Shakspere*, ii. 71, says that, in attributing the murder of the Duke of Clarence to the agency of his brother Richard (afterwards Richard III.), "Shakspere has gone beyond his authorities, in order to blacken Richard. Not a word is said by Holinshed or More of Richard's participation in the murder." This is a mistake, arising from Courtenay's having looked only to Holinshed's history of Richard III. Had he turned to that writer's history of Edward IV. he would have found what he wanted. But as Holinshed evidently here copied Hall, and we know that Shaksnere used Hall as well as Holinshed for his historical plays, we had better quote from Hall, p. 343, ed. Ellis, the passage that furnishes enough authority for Shakspere's words:—

"Some wise menne also wene, that his [Richard's] drifte lacked not in helpynge furth his owne brother of Clarence to his death; which thyng, in all apparaunce he resisted, although he inwardly mynded it. And the cause thereof was—as men notyng his doynges and procedynges did marke—because that he longe, in kynge Edwarde his tyme, thought to obtaine the crowne, in case that the kynge his brother, whose life he loked that ciuil diet woulde sone shorten, shoulde happen to diseace (as he did in dede), his chyldren beynge younge. And then, if the Duke of Clarence had liued, his pretenced purpose had been far hyndered. For yf the Duke of Clarence had kepte hymself trewe to his nephewe the younge king, or would haue taken vpon hym too bee kynge, euery one of these castes had been a troumpe in the Duke of Gloucesters waye: but when he was sure that his brother of Clarence was ded, then he knewe that he might worke without that ieoperdy. But of these poinctes there is no certentie; and whosoeuer diuineth or coniectureth, may as wel shote to fer as to shorte; but this coniecture afterwarde toke place (as fewe doee) as you shall perceiue hereafter."

Shakspere, then, did but a little more than the "some wise menne" of Hall; and when we see that Hall's words above, almost immediately follow his under-printed character of Richard, we can well excuse Shakspere for the extra touch he gave to Richard's participation in Clarence's murder. Richard, says Hall,

"was close and secrete, a deepe dissimuler, lowlye of countenaunce, arrogante of herte, outwardely familier where he inwardely hated, not lettynge to kisse whom he thought to kill, despiteous and cruell, not alwaie for ciuill will, but oiter for ambicion and too serue his purpose; frende and fooe were all indifferent; where his auauntage grewe, he spared no mannes deathe whose life withstode his purpose."

F. J. FURNIVALL.

PREHISTORIC ANTIQUITIES IN THE STOCKHOLM MUSEUM.

Stockholm: August 14, 1875.

I must write a few lines on the rich collections of prehistoric antiquities of the museum of Stockholm, which have just been shown to me by their learned keeper, Doctor Hans Hildebrand. I will begin by saying that the building is the very model of an excellent museum; it does not contain a single piece of wood, and all the doors and window-shutters are of iron. Besides, there are water-pipes throughout the museum, all the saloons of which can instantly be filled with water.

Among the interesting objects of this museum which are peculiar to Sweden, I will first mention the whet-stones of all sizes, some of them more than a yard long: next, the arrows of silex, in form of files, from five to seventeen centimètres long. The rudely-made arms and implements of silex are exceedingly rare in Sweden, and the first colonists of this country must have immigrated here from Denmark, after having acquired there a certain degree of civilisation, for they only used arms and implements of polished silex. The Swedish dolmens have yielded a great many fine specimens of the latter, and it appears that people had the custom here of giving to their dead the most sumptuous stone arms and instruments. There are no "Kjökkenmöddinge" in Sweden. Several dolmens, as, *e.g.*, that of Karleby, have yielded some small objects of bronze, but most of these sepulchres contained no particle of this metal. In the dolmen of Ranten were found two objects of bone, precisely the shape of nails, with large perforated heads and crooked points.

Of curious pottery of the Stone Age the museum of Stockholm contains only a few specimens, and only three vases with incised ornaments particularly attracted my attention; two have on each side two, the third has on each side four perforations for suspension with a string. Here, as in Copenhagen, not only all the pottery of the Stone Age, but also all that of the Bronze Age, is hand-made, and, even among the terra-cottas of the Iron Age I saw a great many which had evidently been made in the same way.

Peculiar to Sweden are the whet-stones of oval form, which appear to have been in use in the first centuries of our era. They were fixed to the girdle by a thin iron ribbon, of which traces are seen on many of these curious stones.

This museum is also very rich in objects of gold and silver, but none of them seem to have been made in a foreign country, except the Arabian ornaments, and of course the Arabian and Byzantine coins. The collection of bronze fibulas is very rich, probably the richest in the world, and there are several types here which are in no other museum, as, *e.g.*, the wonderful fibulas of Gothland. According to M. H. Hildebrand, this island was throughout the first ten centuries of our era the great commercial emporium of the North, and carried on, through Russia, an immense trade with the East, as is shown by the twenty thousand Arabian and some thousand Byzantine coins which were collected there. The Gothland antiquities show that the island was very wealthy; these antiquities are of very great importance, for, owing to the secluded position of Gothland, one can follow up in them the development of culture for ten centuries.

HENRY SCHLIEMANN.

SCIENCE.

ROYAL COMMISSION ON SCIENTIFIC INSTRUCTION AND THE ADVANCEMENT OF SCIENCE: SIXTH, SEVENTH AND EIGHTH REPORTS.

(Third Notice.)

THE eighth Report, which concludes the work of the commissioners, forms in another sense the keystone of their labours. It deals exhaustively with all the relations in which the Government stands, and ought to stand, to science in this country. It touches upon the permanent need of scientific assistance which the various Government Departments experience; determines the duties which the State ought to perform with regard to the advancement of science; and finally proposes a fundamental scheme of reform which would go far to re-organise the entire administration of Great Britain, and interpenetrate it with scientific conceptions. The commissioners have thus reserved for their closing Report a body of recommendations, which are intended to give life to, and knit into one whole, all the minor suggestions which they have hitherto made. Their object has been, not so much to give their countenance to isolated reforms however valuable in themselves, but to place before the public with their own authoritative sanction a comprehensive project which would guarantee for science a worthy position in every aspect of our national life. As the basis of their recommendations, they have analysed and arranged the most important part of the testimony they have received on this subject, not omitting that which was adverse to their own views, and by this means revealed the consensus of scientific opinion in favour of the plan which has received their own approval.

The Report opens with a statement of the amount of scientific work carried on in the great spending departments of the State, such as the Admiralty, the War Office, and the Board of

Trade. No less than 276,000*l.* is annually voted in support of the various scientific surveys now being conducted by Government. Including the 10,000*l.* entrusted to the Royal Society for conducting the Meteorological Office, the total sum now voted by Parliament for scientific purposes would appear to amount to 320,000*l.* a year. Next follow extracts from the evidence of scientific men, chiefly in official positions, which show how unanimous is the feeling that, despite this considerable expenditure, the State is at present badly supplied with the scientific knowledge which it requires. Mr. Anderson, for example, who is the superintendent of machinery at Woolwich, and "has been responsible for the expenditure of nearly 3,000,000*l.* of public money," states that "there is a very great deal which I should like to see taken in hand systematically. We are groping in the dark in almost everything at present; but there are no means at the disposal of State servants to enable them to investigate questions on which large expenditure depends." With reference to the Admiralty, Mr. E. J. Reed, M.P., Admiral Richards, and Mr. Froude give similar evidence, to the effect that that department stands urgently in need both of a permanent Council of scientific advisers, and also of scientific investigations conducted in a continuous and regular manner.

With reference to the promotion of research, the assistance now given by the State is very briefly dismissed. It is pointed out that, apart from the national museums for the biological and geological sciences, the State does next to nothing to encourage the advanced student. "Assistance of a permanent nature is afforded to certain learned societies, by providing them with apartments free of rent, or with annual grants of money in lieu of such accommodation." The sum of 1,000*l.* is also yearly voted by Parliament, to be administered by the Royal Society in aid of researches carried on by private individuals. Such paltry assistance can hardly be recognised as a practical recognition of a far-reaching principle, which is thus forcibly enunciated by Lord Salisbury:—

"I certainly hold that the State may legitimately interfere in giving aid to the advancement of science. It is a very orthodox doctrine to hold, and one which could be supported if necessary by quotations out of Adam Smith, the essence of the doctrine being, that the State is perfectly justified in stimulating that kind of industry which will not find its reward from the preference of individuals, but which is useful to the community at large."

Colonel Strange has pushed this principle to its farthest developments, and thus enumerates the institutions which he thinks should be under State management:—

"(1) An observatory for physics of astronomy; (2) an observatory for terrestrial physics—namely, meteorology, magnetism, etc.; (3) a physical laboratory; (4) an extension of the standards office; (5) a metallurgical laboratory; (6) a chemical laboratory; (7) an extension of collections of natural history, and an able staff of naturalists; (8) a physiological laboratory; (9) a museum of machines, scientific instruments, etc."

The extent to which the commissioners have adopted these suggestions will be seen below, where we print their recommendations at length. In the body of their Report, they insist upon the independent position which the study of astronomical physics has now attained, and upon the peculiar reasons which cause it to stand in especial need of national support. They comment upon the fact that "observatories for astronomical physics are already at work in various parts of Italy, and their immediate erection has been determined on at Berlin and Paris." They also draw attention to the advantages which India affords for carrying on physical observations of the sun. With reference to meteorology, they refer with merited commendation to the labours of the meteorological office, and in a praiseworthy spirit of economy, which ought to do something to protect them from the charge of recklessness, give their approval to the method by which that office has hitherto found it possible to avail itself of the voluntary industry of private observers.

There remains the most important portion of the Report, which discusses "the central organisation which is best calculated to enable the Government to determine its action in all questions affecting Science." The witnesses examined on this point were almost unanimous in favour of the appointment of a Minister of Science, under whose control should fall, not only the money expended by the State upon scientific matters, and the details of scientific instruction, but also the existing State scientific institutions which are now managed by the various Departments. Some of the witnesses recommend that his duties should be combined with the direction of education generally and the fine arts. The Astronomer-Royal, however, so far as the Greenwich observatory is concerned, is in all respects satisfied with its present connexion with the Admiralty. On the proposal to establish a State Council of Science a greater divergence of views was discovered. Colonel Strange, on this topic again, is the representative of the most comprehensive opinions, and it is in criticism upon his thoroughgoing scheme that the other witnesses were led to declare their own views. Some are of opinion that the Royal Society, as at present constituted, could afford all the assistance that the Government Departments require, if only it were consulted with more regularity, and if on special occasions remuneration were to be given for its advice. Three prominent statesmen, Lords Salisbury and Derby, and Sir Stafford Northcote, are strongly opposed to the institution of any new-fangled Council, which they think would be opposed to the traditions of the British Executive, would tie the hands of Ministers, and interfere with their direct responsibility to Parliament. Considerable difference of opinion was also expressed as to whether such a Scientific Council should be merely consultative, or should also have the liberty of initiating investigations; as to the remuneration of its members, and the mode by which they should be selected. The conclusions of the commissioners steer a middle course between the opposing theories, and fairly represent the general consensus of the great body of evidence which they received. Their "conclusions and recommendations" on all the matters treated of in this Report are as follows:

"I.—The assistance given by the State for the promotion of scientific research is inadequate, and it does not appear that the concession or refusal of assistance takes place upon sufficiently well defined principles.

"II.—More complete means are urgently required for scientific investigations in connexion with certain Government Departments; and physical as well as other Laboratories and apparatus for such investigations ought to be provided.

"III.—Important classes of phenomena relating to physical meteorology and to terrestrial and astronomical physics require observations of such a character that they cannot be advantageously carried on otherwise than under the direction of the Government.

"Institutions for the study of such phenomena should be maintained by the Government; and in particular, an Observatory should be founded specially devoted to astronomical physics, and an organisation should be established for the more complete observation of tidal phenomena and for the reduction of the observations.

"IV.—We have stated in a previous Report that the national collections of natural history are accessible to private investigators, and that it is desirable that they should be made still more useful for purposes of research than at present. We would now express the opinion that corresponding aid ought to be afforded to persons engaged in important physical and chemical investigations; and that whenever practicable such persons should be allowed access, under proper limitations, to such Laboratories as may be aided or established by the State.

"V.—It has been the practice to restrict grants of money made to private investigators for purposes of research to the expenditure actually incurred by them. We think that such grants might be considerably increased. We are also of opinion that the restriction to which we have referred, however desirable as a general rule, should not be maintained in all cases, but that, under certain circumstances, and with proper safeguards, investigators should be remunerated for their time and labour.

"VI.—The grant of 1,000*l.*, administered by the Royal Society, has contributed greatly to the promotion of research, and the amount of this grant may, with advantage, be considerably increased.

"In the case of researches which involve and are of sufficient importance to deserve exceptional expenditure, direct grants in addition to the annual grant made to the Royal Society should be made in aid of the investigations.

"VII.—The proper allocation of the funds for research; the establishment and extension of Laboratories and Observatories; and generally the advancement of science and the promotion of scientific instruction as an essential part of education would be most effectually dealt with by a Ministry of Science and Education. And we consider the creation of such a Ministry to be of primary importance.

"VIII.—The various Departments of the Government have from time to time referred scientific questo the Council of the Royal Society for its advice; and we believe that the work of a Minister of Science, even if aided by a well organised scientific staff, and also the work of the other Departments, would be materially assisted if they were able to obtain, in all cases of exceptional importance and difficulty, the advice of a Council representing the scientific knowledge of the nation.

"IX.—This Council should represent the chief scientific bodies in the United Kingdom. With this view its composition need not differ greatly from that of the present Government Grant Committee of the Royal Society. It might consist of men of science selected by the Council of the Royal Society, together with representatives of other important scientific societies, and a certain number of persons nominated by the Government. We think that the functions at present exercised by the Government Grant Committee might be advantageously transferred to the proposed Council.

"(Signed) Devonshire.
Lansdowne.
John Lubbock.
James P. Kay-Shuttleworth.
Bernard Samuelson.
W. Sharpey.
Thomas H. Huxley.
C. G. Stokes.
Henry J. S. Smith."

We have quoted at greater length than usual from the contents of this Report, and we have thought it desirable to append the names of the commissioners, because of the novelty and thoroughness of the suggestions which they have unanimously adopted. Their full meaning, indeed, will not be appreciated without a careful perusal of the Report. In that way only will it be learnt how influential is the weight of authority on which they rest, and also with what moderation they avoid the more extreme opinions which were suggested. With regard to the practical carrying out of these proposals but little need be said. Men of science have long been known to entertain in private the views which have now received unqualified approval from a commission which contained many prominent men outside their own body. For the future it will be their own fault if, with such authority at their back, they permit questions in which the nation is no less interested than themselves to remain much longer in the domain of theory.

J. S. Cotton.

KEW GARDENS—THE DIRECTOR'S REPORT.

The Director's Report on the Progress and Condition of the Royal Gardens at Kew during the year 1874 has just appeared. The number of visitors to the gardens during the past year was nearly 700,000, thus showing that they are fully appreciated by the general public; and, judging from the additions to the purely scientific department of the establishment, Kew may be said, on

the whole, to be advancing under the vigorous management of Dr. Hooker. One of the principal objects of the present Director is to form as complete a collection as possible of hardy shrubs and trees; and, considering the difficulties encountered, the progress is satisfactory. Although a few different species of trees thrive well at Kew, the soil is so wretchedly poor that we cannot hope that future generations will have the pleasure of seeing a large number of species in their full development. The alluvial deposit is thin in all parts, and in some places barely covers the gravel. Again, what little the soil contained to support arborescent vegetation has been taken from it by the trees of medium age, which are now unfortunately rapidly disappearing. Nevertheless, the young trees of numerous species planted during the last few years are, perhaps, more instructive to the general public than are larger ones, which are less easy of comparison. Perhaps the most widely beneficial influence and action of the establishment at Kew, from a practical point of view, is the interchange of plants and seeds of economic species. Every year numerous new vegetable products are brought into use, new and superior varieties are raised; and, as a centre for their propagation and distribution Kew can, and does, effect much, both at home and in our most distant possessions During the past year the authorities have been very active in the propagation of the Liberian and other good varieties of coffee, to replace the older diseased varieties. Dr. Hooker writes:—

"The disease and insect ravages by which of late years coffee has been attacked in India, Natal, Ceylon, and other colonies, has directed the attention of the local and home Governments to this important culture, and given rise to a very important and onerous correspondence with this establishment. My attention has in consequence been directed to obtaining accurate reports as to the nature of the diseases, of which several are confounded under one common epithet, to recommending measures for the cultivation of coffee in colonies, once famous for its production, where it has been almost abandoned, as well as in others where the cultivation has been scarcely attempted, and to the cultivation of new and improved varieties."

Since the date up to which this Report refers we have opportunities of knowing that much more has been done in this direction. The cultivation of cinchona in various parts of India, Ceylon, and Jamaica, is now in successful operation; and the subject of its cultivation in the now almost abandoned island of St. Helena has been again brought under the notice of the Government, owing to the fact of a large proportion of the trees introduced there ten years ago from Kew, and whose culture has been abandoned, having been found after years of neglect to be in a flourishing condition. The suitability of the soil and climate of that island for cinchona cultivation has now, Dr. Hooker says, been indisputably proved. The cultivation of tobacco and manufacture of cigars in Jamaica is reported to be advancing rapidly. Another subject to which much attention is now being given is the cultivation of various plants in the colonies for paper-making. The prospects of *Ipecacuanha* cultivation are at present not very encouraging, owing, however, to the naturally slow rate of growth of this plant, rather than cultural difficulties. The supply of caoutchouc-producing trees is a matter of great commercial importance, and endeavours are being made to establish *Hevea brasiliensis* in India. Plants have been sent from Kew to Calcutta, where they have safely arrived, and have since been propagated. Among the more interesting plants and seeds received in the gardens during the past year we may mention: seeds of *Pringlea antiscorbutica*, and other Kerguelen Island plants, from the H.M.S. *Challenger* Expedition; seeds of *Chondodendron tomentosum*, from D. Hanbury; Liberian Coffee, from Messrs. Irvine and Woodward; Bitter Cola seeds, from Dr. Masters; *Darlingtonia*, from Lady Dorothy Nevill; *Cedrela sinensis*, *Aldrovanda*, *Dorema ammoniacum*, *Musa superba*, *M. Takka*, *Trachylobium Hornemannianum*, *Macadamia ternifolia*, South African Aloes and Stapelias, &c., &c., from various donors. The Museums have been considerably enriched; among acquisitions we note quadruple fruits of *Lodoicea Seychellarum*; Green Putchuk Root, *Aristolochia recurvilabra*; Ngai Camphor, *Blumea balsamifera*; fruits and lithographic plates illustrating the *Lecythidaceae*; and a collection of raw materials and products illustrating the manufacture of paper from *Broussonetia papyrifera* and *B. Kaempferi*. The Herbarium acquired about 22,000 additional specimens during the past year. These include Nordstedt and Waldstet's *Characeae*; new Indian plants, Beddome's types; New Guinea plants; South African plants, including a large proportion of new species; Palms from the Amazon district; various Australian plants, &c. We have already mentioned that the Government has granted a sum of money for the erection of a new building for the Herbarium and Library. According to Dr. Hooker's report, in the event of such a building being erected, it will be associated with a laboratory for physiological botany through the liberality of Thomas P. Jodrell, Esq., M.A., the founder of the Jodrell Professorship (of Physiology) in University College, London.

MEETING OF THE BRITISH ASSOCIATION AT BRISTOL.

Section A.—Mathematical and Physical.

(*Thursday, August* 26, 1875.)

THE President of the Section, Professor Balfour Stewart, opened the proceedings with an address upon the connexion between sun-spots and magnetic and meteorological disturbances upon our planet, and the necessity for an organisation for pursuing the study of these and allied phenomena. Nearly fifty years ago Schwabe, of Dessau, began to produce daily sketches of the spots that appeared upon the sun's surface, and after forty years of patient observation he was rewarded by discovering the fact that these sun-spots are periodic. The discovery was quite unforeseen and has attracted much attention from other investigators. The possible causes are two. Either there is a strangely hidden periodical cause residing in the sun himself, or external bodies, such as planets, act somehow in their varied positions on the atmosphere of the sun. But whether the cause be an internal or external one, in either case we are completely ignorant of its nature. We can easily enough imagine a cause operating from the sun himself and his relations with a surrounding medium to produce great disturbances on his surface, but we cannot easily imagine why disturbances so caused should have a periodicity. On the other hand, we can easily enough attach periodicity to any effect caused by the planets, but we cannot well see why bodies comparatively so insignificant should contribute to such very violent outbreaks as we now know sun-spots to be.

An English astronomer—Mr. Carrington—next took up this branch of research, and sketched and recorded the positions of sun-spots for seven years. One of the most prominent results of his labours was the discovery of the fact that sun-spots appear to have a proper motion of their own, those nearer the solar equator moving faster than those more remote. Another was the discovery of changes apparently periodical affecting the disposition of spots in solar latitude. It was already known that sun-spots confine themselves to the sun's equatorial regions, but Mr. Carrington showed that the region affected was liable to periodical elongations and contractions, although his observations were not sufficiently extended to determine the exact length of this period.

The introduction of celestial photography by Mr. Warren De La Rue was followed by a ten years' series of observations at Kew, which have added considerably to our knowledge. One of the most important facts made out is that nearer planets influence the behaviour of sun-spots, but the cause for the period of eleven years and a quarter which Schwabe discovered is yet to be sought.

While the sun's surface was thus being examined both telescopically and photographically, the spectroscope came to be employed as an instrument of research. It had already been surmised by Professor Stokes that the vapour of sodium at a comparatively low temperature forms one of the constituents of the solar atmosphere, inasmuch as the dark line D in the spectrum of the sun coincides in position with the bright line given out by incandescent sodium vapour.

This method of research was greatly extended by Kirchhoff, who soon found that many of the dark lines in the solar spectrum were coincident with the bright lines of sundry incandescent metallic vapours, and a good beginning was thus made towards ascertaining the chemical constitution of the sun.

The new method soon brought forth further fruit when applied in the hands of Huggins, Miller, Secchi, and others, to the more distant heavenly bodies. It was speedily found that the fixed stars had constitutions very similar to that of the sun. But a peculiar and unexpected success was attained when some of the nebulae were examined spectroscopically. To-day it seems (so rapidly has knowledge progressed) very much like recalling an old superstition to mention that, until the advent of the spectroscope, the irresolvable nebulae were considered to be gigantic and remote clusters of stars, the individual members of which were too distant to be separated from each other even with a telescope like that of Lord Rosse.

But Mr. Huggins, by means of the spectroscope, soon found that this was not the case, and that most of the nebulae which had defied the telescope gave indications of incandescent hydrogen gas.

It was also found by this observer that the proper motions of some of the fixed stars in a direction to or from the earth might be detected by means of the displacement of their spectral lines, a principle of research which was first enunciated by Fizeau. Hitherto no one had attempted to localise the use of this instrument so as to examine particular districts of the sun, as for instance a sun-spot, or the red flames already proved by De La Rue to belong to our luminary. This application was first made by Mr. Lockyer, who, in the year 1865, examined a sun-spot spectroscopically, and remarked the greater thickness of the lines in the spectrum of the darker portion of the spot.

Dr. Frankland had previously found that thick spectral lines correspond to great pressure, and hence the inference from the greater thickness of lines in the umbra of a spot is, that this umbra or dark portion is subject to a greater pressure—that is to say, it exists below a greater depth of the solar atmosphere than the general surface of the sun. Thus the results derived from the Kew photoheliograph and those derived from the spectroscope were found to confirm each other. Mr. Lockyer next caused a powerful instrument to be constructed for the purpose of viewing spectroscopically the red flames round the sun's border, in the hope that if they consisted of ignited gas the spectroscope would disperse, and thus dilute and destroy the glare which prevents them from being seen on ordinary occasions.

Before this instrument was quite ready, these flames had been analysed spectroscopically by Captain Herschel, M. Janssen, and others, on the occasion of a total eclipse occurring in India, and they were found to consist of incandescent gas, most probably hydrogen. But the latter of these observers (M. Janssen) made the important observation that the bright lines in the spectrum of these flames remained visible even after the sun had reappeared, from which he argued that a solar eclipse is not necessary for the examination of this region.

Before information of the discovery made by M. Janssen had reached this country, the instrument of Mr. Lockyer had been completed, and he also found that by its means he was able to analyse at leisure the composition of the red flames without the necessity of a total eclipse. An atmosphere of incandescent hydrogen was found to surround our luminary, into which, during the greater solar storms, sundry metallic vapours were injected—sodium, magnesium, and iron forming the three that most frequently made their appearance.

But the upper portions of the sun's atmosphere can be examined only on the rare and precious occasions of eclipses. Thanks to the various Government expeditions, we now possess definite information regarding the solar corona. A large part of this appendage unmistakeably belongs to the sun, and in part at least consists of an ignited gas giving a peculiar spectrum which we have not yet been able to identify with that of any known element. The temptation is great to associate this spectrum with the presence of something lighter than hydrogen, of the nature of which we are yet totally ignorant.

If we turn to our own planet, there are strong grounds for supposing that the meteorology of the sun and that of the earth are intimately connected together. Mr. Broun has shown the existence of a meteorological period connected apparently with the sun's rotation, five successive years' observations of the barometer at Singapore all giving the period 25·74 days. Mr. Baxendell, of Manchester, was the first to show that the convection-currents of the earth appear to be connected somehow with the state of the sun's surface as regards spots; and still more recently Mr. Meldrum, of the Mauritius observatory, has shown, by a laborious compilation of ships' logs, and by utilising the meteorological records of the island, that the cyclones in the Indian Ocean are most frequent in years when there are most sun-spots. He likewise affords us grounds for supposing that the rainfall, at least in the tropics, is greatest in years of maximum solar disturbance.

M. Poey has found a similar connexion in the case of the West Indian hurricanes; and finally, Piazzi Smyth, Stone, Köppen, and, still more recently, Blanford, have been able to bring to light a cycle of terrestrial temperature having apparent reference to the condition of the sun.

Thus we have strong matter-of-fact grounds for presuming a connexion between the meteorology of our luminary and that of our planet, even although we are in complete ignorance as to the exact nature of this bond.

If we now turn to terrestrial magnetism the same connexion becomes apparent.

Sir Edward Sabine was the first to show that the disturbances of the magnetism of the earth are most violent during years of maximum sun-spots. Mr. Broun has shown that there is likewise a reference in magnetic phenomena to the period of the sun's rotation about his axis, an observation recently confirmed by Hornstein; and still more recently Mr. Broun has shown that the moon has an action upon the earth's magnetism, which is not altogether of a tidal nature, but depends, in part at least, upon the relative position of the sun and moon.

There is a probability that the trade-winds and the return trade-winds, inasmuch as the whole earth is a magnet, are the vehicles of electric currents which will of course react on the magnetism of the earth. Now, since the velocity of these upper currents has a daily variation, their influence as exhibited at any place upon the magnetism of the earth may be expected to have a daily variation also.

The question thus arises, Have we possibly here a cause which may account for the well-known daily magnetic variation? Are the peculiarities of this variation such as to correspond to those which might be expected to belong to such electric currents? It may be said that, as far as we can judge, there is a likeness of this kind between the peculiarities of these two things; but a more prolonged scrutiny will of course be essential before we can be absolutely certain that such currents are fitted to produce the daily variation of the earth's magnetism.

Beside the daily and yearly periodic changes in these upper convection-currents, we should also expect occasional and abrupt changes forming the counterparts of those disturbances in the lower strata with which we are familiar. And these may be expected in like manner to produce non-periodic occasional disturbances of the magnetism of the earth. Now, it is well known that such disturbances do occur, and further that they are most frequent in those years when cyclones are most frequent—that is to say, in years of maximum sun-spots. In one word, it appears to be a tenable hypothesis to attribute at least the most prominent magnetic changes to atmospheric motions taking place in the upper regions of the atmosphere where each moving stratum of air becomes a conductor moving across lines of magnetic force; and it was Sir William Thomson who first suggested that the motion of conductors across the lines of the earth's magnetic force must be taken into account in any attempted explanation of terrestrial magnetism.

It thus seems possible that the excessive magnetic disturbances which take place in years of maximum sun-spots may not be directly caused by any solar action, but may rather be due to the excessive meteorological disturbances which are likewise characteristic of such years; on the other hand, that magnetic and meteorological influence which Mr. Broun has found to be connected with the sun's rotation points to some unknown direct effect produced by our luminary, even if we imagine that the magnetic part of it is caused by the meteorological. Mr. Broun is of opinion that this effect of the sun does not depend upon the amount of spots on his surface.

There is much probability that the cyclones produced by the sun are associated with an influence different from light and heat. The effects of the sun on our globe appear to be a magnetic influence depending on his rotation, a cyclone influence depending on his disturbed surface, and the well-known light and heat effect communicated by the energy of material vibrations. But a solution of the questions connected with these subjects is only to be hoped for when properly fitted observatories are established, and Professor Balfour Stewart believes this can only be advantageously done by Government. He holds that we are on the eve of a great generalisation—a mighty law—and if Governments would understand the ultimate *material* advantages of every step forward in science, however inapplicable each may appear for the moment to the wants or pleasures of ordinary life, they would find reasons, patent to the meanest capacities, for bringing the wealth of mind, now lost on the drudgery of common labours, to bear on the search for those wondrous laws which govern every movement, not only of the mighty masses of our system, but of every atom distributed throughout space.

Section B.—Chemistry.

The President of this Section for the present year is Mr. A. G. Vernon Harcourt, and as is usual an address was delivered by the President to inaugurate the business of the Section. Mr. Harcourt wishes to develop a wider taste for chemical research, and already consequent upon the suggestions in his address a committee has been formed to collect and publish subjects and suggestions for chemical researches. He thought the small proportion of original work in chemistry which is done in Great Britain must be a cause of regret. The immediate cause is easily found. It is not that English workers are less inventive or industrious than their fellows across the Channel, but that their number is exceedingly small. No doubt there are differences in natural aptitudes and tastes, but the chief reason why it is so rare for men of leisure to addict themselves to scientific pursuits is that so few boys and young men have had experience of the pleasure which they bring. Much has been done during the last twenty years, both at the universities and at the public schools, to provide for the teaching of science. The University of Oxford has made liberal provision for the teaching of science and for its recognition among the studies requisite for a degree, and the colleges have not been backward in allotting scholarships and fellowships as soon as they had reason to believe that those elected for proficiency in science would be men equal in intellectual calibre to those elected for proficiency in classics and mathematics. Science, however, fails to attract more than a small percentage of students. Examinations produce in the student a habit of looking to success in examination as the end of his studies—a habit of mind peculiarly alien to the true spirit of scientific work. Whether a theory is consistent or true is immaterial, provided it is probable, *i.e.*, advanced by some author whose authority the examiner would recognise. Chemistry can only claim a place in general education if its study serves, not to make men chemists, but to help in making them intelligent and well-informed. The number of chemical students ought then to increase, and if the number increases, no rigour of the examination system will prevent one or two, perhaps, in every year from adopting chemistry as the pursuit of their lives. The universities, however, have little power to determine what number of students shall follow any particular line of study—the responsibility of fixing the position of science in education rests with the masters of schools. During the last ten years provision has been made at most of the larger schools for the teaching of some branches of science, but great difficulties have been encountered in its introduction. The main and insurmountable difficulty is the "impenetrability" of studies. The President was of opinion that wherever a school could afford appliances for the teaching of chemistry, all the boys should pass through the hands of the teacher of this subject, and those boys be selected for the study who showed more intelligence or interest than the rest. The professor's lecture-rooms and laboratories would then be filled with young men who had already learnt the rudiments of science, and laboratories of research as well as of elementary instruction would find a place at the English Universities. The introduction of the study of natural science has borne earlier fruit in schools whose celebrity is of more recent date, such as Clifton College. Oxford and Cambridge ought to possess, but are far from possessing, such laboratories as have lately been built at the Owens College, Manchester. Science, and in particular chemical science, may be advanced by the assignment to it of a more prominent and honoured place in education. The President next advocated the system of endowments, and spoke of their application to the promotion of original research. He was of opinion that posts constituted chiefly with this object should be attached in every case to each educational body, and should have only light educational duties assigned to them. The science of chemistry, he was of opinion, would advance more rapidly if it were possible to organise chemists into working parties, having each a definite region to explore. Much fruitless and discouraging labour might be saved, a stimulus might be given to experimental enquiry, and chemical research might become more systematic, and thus more productive, if Bacon's example were followed by the leaders of chemistry at the present day. Mr. Harcourt suggested that the representatives of scientific chemistry should publish a list of subjects for research, the boundless extent of the field upon which they had entered making the organisation of chemical enquiry very desirable. Their aim was to discover the laws which govern the transformation of matter, and a vast collection of receipts for the preparation of different substances was being

amassed. The growth of chemical theory, however, does not keep pace with the accumulation of chemical facts. Among chemical enquiries he hoped many would be included relating to the most simple cases of chemical change. The thorough study of a few reactions might, perhaps, bring in more knowledge of the laws of chemistry than the preparation of many new substances. In his concluding remarks the President alluded briefly to technical chemistry, to which the British Association wished to contribute. By visiting in turn the principal centres of British industry this Association brings together men engaged on pure and on applied chemistry, and one of the interesting results of their visit was the opportunities which are provided of seeing chemical transformations on a large scale, and effected by processes which observation and inventiveness have gradually brought to perfection, and with the surprising familiarity and skill which are engendered by daily use.

Section C.—Geology.

Dr. Wright, the President of the Geological Section of the Association, has followed an excellent precedent by giving a disquisition upon the geology of the country around the place of meeting. We published in our last number but one an article on the interesting field for study which Bristol affords, and as there has been also in the Association Guide, the President's Address, and sundry papers read in this Section, a further treatment of parts or the whole of the district, there can be no lack of help for any Bristolian who wishes to know something of the rocks about him.

Dr. Wright enumerates ten periods represented by the rocks of the neighbourhood, from the oldest Silurian of Tortworth to the Alluvium of Bristol itself. The localities may be grouped into six districts:—

1. Tortworth.
2. Mendip Hills.
3. Radstock.
4. Bristol.
5. Dundry.
6. Bridgewater.

The Silurian in Tortworth district has long been classical ground to the geologist, but the true age and relation of the transition strata were not understood until Murchison's work was published. An Old Sandstone which abounds in fossils is the dominant rock, and is called Caradoc, or Upper Llandovery Sandstone. The Wenlock limestone and the Ludlow rock, which is exposed at low water on the west bank of the Severn at Purton Passage, are the other Silurian members in this group. These are succeeded by a red sandstone of the Devonian group, with the whitish-gray flags in its upper parts of which Tortworth Court is built.

Also we get a well-developed bone-bed at the base of the Carboniferous rocks, and above the coal-measures a curious conglomerate. This formation is described as composed principally of rounded and angular fragments of Limestone, exceeding the size of the head, with fragments of Quartz and Greenstone, cemented together with a calcareous paste, which is generally magnesian.

The Mendip Hills extend nearly due east and west for thirty miles, with an average breadth of six miles, and constitute the southern base of the Bristol coalfield. They consist chiefly of Old Red Sandstone, Carboniferous Limestone, and Trias. This last is represented by a magnesian conglomerate, flanking the hills and in places capping their summits.

Old Red Sandstone forms the oldest stratified rock, and is, strictly speaking, the axis of the Mendip Hills. This nucleus is surrounded, and in parts overlain, by Carboniferous Limestone, which conforms with it both in dip and strike. The Carboniferous Limestone is grandly developed, and constitutes the great mass of the chain. On the northern flank of the Mendips, but highly contorted, are the well-known coals of Vobster, Holcombe, &c. There is no reason why we should not conclude that the coals of the northern side once extended across the Mendips, and now lie deeply buried along the south part of the range. Numerous islands of Carboniferous Limestone, surrounded by Triassic rocks, occur at Wells and other places, and the entire range of the Mendips is surrounded by a limestone conglomerate. This conglomerate is composed entirely of fragments of the older rocks composing the hills, and is the result of the denuding action of the sea which deposited the Keuper beds. This marine denudation took place when the entire area occupied by the Mendips and coal-basin underwent depression, the Dolomitic Conglomerate and sandstones accumulating *pro rata* with the depression and consequent destruction of the rocks offered for resistance. This conglomerate, the "*overlie*" of the coal-miners of the Bristol basin, although visible only upon the Palaeozoic rocks surrounding the coal-bearing area, is nevertheless entirely spread over them, and beneath the New Red Sandstones that occupy nearly the entire area from Tortworth to the southern flanks of the Mendips, its presence being marked by the marls and sandstones of the Keuper, the Lias limestones, and in other places the Oolitic rocks that lie within the coal-basin, especially along its south-east border from Bath to Wells. We have no physical evidence more convincing of denudation, elevation, and depression over large areas of the earth's surface than what we can witness so easily and study so advantageously in the Mendip Hills; for this conglomerate rock here defines the limits between Mesozoic and Palaeozoic times: the highly inclined Old Red Sandstone forms the nucleus of the chain, the Carboniferous rocks resting upon it; and the coal-measures in conformable succession to the latter were all indurated, metamorphosed, elevated, and thrown into folds long prior to the time when, under slow depression, destruction, and denudation, the Dolomitic Conglomerate was laid down by the Triassic Sea—the resultant of wave-forces along a coast-line which was then the Mendip range, its shingle and boulders being slowly cemented by a magnesio-calcareous paste derived from the wasting beds of the great limestone series.

There is, moreover, evidence of a Rhoetic Sea which surrounded and covered the Mendips, in some cherty and sandy deposits overlying all the older rocks, and passing upwards into the Lias beds, which in this district are found in fragmentary portions.

Two dykes have been observed in the district, one seven miles in length, coincident with the axis of the Mendips, the other at Bleadon. The age of the dykes is subsequent to that of the coal-measures, the whole of the Palaeozoic rocks being disturbed alike, and lying at one general angle of inclination, while the Secondary rocks are not affected by these Palaeozoic changes.

The Radstock district comprises the Bristol coal-field, and consists of Upper Coal, Sandstone, Lower Coal and Millstone Grit. There is abundant evidence that this field was connected with the Forest of Dean and South Wales, but the details of the beds are too intricate to be summarised. A praiseworthy economy of the coal is mentioned by the President in the fact that many seams are extensively worked of only ten or twelve inches in thickness.

The Bristol district is contained in a circle of eight miles' radius from the Guildhall. There are exposures of the Old Red Sandstone and the other old beds already mentioned beside higher beds of Lias and Oolite. The Carboniferous Limestone is a great marine formation, and is formed of the sediments of an extensive and wide-spreading sea; the beautiful scenery so characteristic of the Avon, Severn, and Wye is in a great measure due to the development of this rock in these regions. One of the grandest sections of all the beds of the Carboniferous Limestone is that exposed in the gorge of the Avon near Clifton, where it is seen resting on the Old Red Sandstone, and overlain by the Millstone Grit.

Last in order, as latest in point of time, we come to the Dundry district, which displays the Oolitic formations. Here we have the age of the Lias followed by the so-called Jurassic age.

The Jurassic rocks were accumulated as sediments or shore-deposits under many changes of condition; and the idea of a slowly-subsiding bed of the coralline sea gives us, perhaps, the nearest approach to what appears to have prevailed.

The Jurassic waters were studded with coral reefs, extending over an area equal to that of Europe, as they stretch through England diagonally from Yorkshire to Dorsetshire, through France from the coast of Normandy to the shores of the Mediterranean, forming besides a chain winding obliquely through the Ardennes in the north to Charente-Inférieure in the south, including Savoy, the Hautes-Alpes and Basses-Alpes, the Jura, Franche-comté, the Jura Chain of Switzerland throughout its entire length from Schaffhausen on the Rhine to Cobourg in Saxony, and along the range of the Swabian Alps and Franconian Jura. Throughout all this widely-extended Oolitic region, coralline strata were accumulating through countless ages by the living energies of Jurassic Polyps, as all the Madreporic Limestone beds in these formations are due to the life-energies of different species of these creatures; and were we to venture to estimate the lapse of time occupied in the deposit of the coral Oolites by what we know of the life-history of some living species, we should find good reasons for concluding that the Jurassic age must have been one of long duration. It is not the mere coralline structure *per se* that is due to Polyp-life, but the entire mass of Oolitic limestones are the products of the same vital force; for there could be no doubt in the mind of any competent observer who carefully examined such a rock as that in the speaker's hand that it was a mass of coral secreted by a Jurassic Polyp, and that the Oolitic limestone which surrounds the coral stem is the product of a portion of a wasted reef which had been broken up, ground into mud, and constituted the paste that had coated particles on the shore, and formed by the roll of the waves the globules which were afterwards cemented by calcareous waters, and the whole transformed into the rock we call Oolitic limestone.

The reefs that remain are merely fragments of what had existed; and those that have disappeared furnished the calcareous material out of which the Oolites of subsequent formations have been built up.

Dr. Wright does not countenance Mr. Darwin's theory of evolution, to judge from the following:—

"In these remarks I have carefully avoided any allusion to the origin of species, because Geology suggests no theory of natural causes, and Palaeontology affords no support to the hypothesis which seeks by a system of evolution to derive all the varied forms of organic life from pre-existing organisms of a lower type. As far as I have been able to read the records of the rocks, I confess I have failed to discover any lineal series among the vast assemblage of extinct species, which might form a basis and lend reliable biological support to such a theory. Instead of a gradation upwards in certain groups and classes of fossil animals, we find, on the contrary, that their first representatives are not the lowest, but often highly organised types of the class to which they belong."

Section D.—Biological. Department of Anthropology.

Section D is singular in being divided into three departments, and these three departments are gathered together when the President of either department delivers his inaugural address, and resume their separate sittings later. On Friday the section gathered its forces in such strength as to overflow the room in which Dr. Rolleston delivered his introduction to the business of the

Anthropological division. He began by calling attention to the papers to be laid before the department, and especially to the paper by Colonel Lane Fox relating to the discovery of remains at Cissbury, which in his opinion connect the Palæolithic with the Neolithic Celt types. The President then referred to the interesting field which Polynesia and Australasia generally offer to the anthropologist. Dr. Carl E. Meinicke's work on the Islands of the Pacific is worthy of attention, but the Professor does not hesitate to say that the most important contribution to the ethnology of Polynesia which has been made recently is the article on that subject in the *Contemporary Review* for February, 1873, by the Rev. S. Whitmee, of Samoa. He added that the department would be favoured with some papers upon the ethnology, anthropology, and future prospects of the Polynesian race by other persons eminently qualified to speak upon the subject, as having spent many years usefully among them, and on the spot. Writers who have little respect for most things else, and by no means too much for themselves, speak still with something like appreciation of the work done in those regions by the London Missionary Society; and they would value highly any papers from men who have had such long and such favourable opportunities for forming opinions on matters which touch at once our national and our scientific responsibilities. What question can be of closer concernment than that of the possibility of rescuing the inhabitants of Polynesia from that gradual sliding into extinction which some writers appear to acquiesce in as the natural fate of such races?

Dr. Georg Gerland stated in 1872 that the decrease of the Polynesian populations is not now going on so fast as it was in the first half of the century; it has in some localities entirely ceased, while in others the indigenous population is actually on the increase. The natives have adapted themselves more to the influences of civilisation and Europeans, and, most of all, the missionaries have done much to assist them. The President went on to say:—

"Mr. Bagehot has been quoted by Mr. Darwin, in his *Descent of Man*, as saying that 'it is a curious fact that savages did not formerly waste away before the classical nations, as they do now before the modern civilised nations; had they done so the old moralists would have mused over the event; but there is no lament in any writer of that period over the perishing barbarians.' On reading this for the first, and indeed for a second time, I was much impressed with its beauty and originality; but beauty and originality do not impress men permanently unless they be coupled with certain other qualities. And I wish to remark upon this statement, first, that it is exceedingly unsafe to argue from the silence of any writer, ancient or modern, to the non-existence of the non-mentioned thing. I do not recollect any mention in the ancient writers of Stonehenge, nor can I call to mind at this moment any catalogue of the vocabularies of the Cimbri and Teutones, of the Ligures and Iberians, with whom the ancients were brought into prolonged contact. These little omissions are much to be regretted, as, if they had been filled up, a great many very interesting problems would thus have been settled for us which we have not as yet settled for ourselves. But these omissions do not justify us in thinking that Stonehenge is an erection of post-Roman times, or in holding that any of the strange races mentioned were devoid of a language. But, secondly, what we know of the classical nations dates from a time when the 'merciless bronze' had begun to give way to the dark gleaming steel. But long before the displacement of bronze weapons by iron ones, the bronze had had abundant time to displace both stone weapons and the people who used them. And it is plain enough to suggest that one reason why the old moralists did not muse over the disappearance of the aboriginal races lies in the fact that these races had neither a contemporary Homer to sing their history, nor an Evans to interpret their weapons after their extinction. The actual Homeric poems deal with a region thickly peopled and long subdued by a Greek-speaking metal-using race. Rhodes and Crete were as different then from what Fiji and New Guinea are now as Merion and Idomenes are from Thakombau and Rauparah. But, thirdly, let us ask, as the philosophers did with regard to the fish and its weight in and out of the bucket of water, Are the facts about which we are to enquire really facts? Now I am not going to plunge into the excursuses appended to editions of Herodotus, or to discuss the history of the Minyæ, or of any other race of which we know as little. But I will just quote a few verses from a beautiful passage in Job which appear to me to give as exact a description of a barbarous race perishing and outcast as could be given now by a poetical observer in Australia or California. Speaking of such a race the poet says:—'For want and famine they were solitary, fleeing into the wilderness in former time desolate and waste. Who cut up mallows by the bushes, and juniper-roots for their meat. They were driven forth from among men (they cried after them as after a thief); To dwell in the cliffs of the valleys, in caves of the earth, and in the rocks. Among the bushes they brayed; under the nettles they were gathered together. They were children of fools, yea, children of base men; they were viler than the earth' (Job, chap. xxx. ver. 3–8).

"I opine that these unhappy savages must have 'wasted away' under these conditions; and that there is no need, with such actual *verae causae* at hand, to postulate the working of any 'mysterious' agency, any inscrutable poisonous action of 'the breath of' civilisation. What is mysterious to me is not civilisation, but the fact that people who are in relation with it do not act up to its behests. And what is the mystery to me is not how an epidemic can, when introduced among helpless Polynesians, work havoc, but how it is that epidemics should be allowed to do so here in England from time to time. We are but some four years away from the last smallpox epidemic, of the management, or rather mismanagement of which I had myself some opportunity of taking stock; and what we saw then in England renders it a little superfluous to search for recondite causes to account for depopulation in countries without Local Boards."

He next passed to the subject of craniology.

Of the value of skull-measuring to the ethnographer there are two widely-opposed views. According to the views of one school, craniography and ethnography are all but convertible terms; another set of teachers insist upon the great width of the limits within which normal human crania from one and the same race may oscillate, and upon the small value to be attached to differences expressed in tenths of inches. As usual the truth will not be found in either extreme view.

For the proper performance of a craniographic estimation, two very different processes are necessary: one is the carrying out and recording a number of measurements; the other is the artistic appreciation of the general impressions as to contour and type which the survey of a series of skulls produces upon one.

The largest result which craniometry and cubage of sculls have attained is the demonstration of the following facts:—(1) That the cubical contents of many skulls from the earliest sepultures from which we have any skulls at all, are larger considerably than the average cubical contents of modern European skulls; and (2) that the female skulls of those times did not contrast to that disadvantage with the skulls of their male contemporaries which the average female skulls of modern days do, when subjected to a similar comparison.

And for the explanation of the pre-eminently large size of the brains of these particular representatives of our species, the tenants of prehistoric sepulchres, we have to bear in mind, first, that they were, as the smallness of their numbers and the largeness of the tumuli lodging them may be taken to prove, the chiefs of their tribes; and, secondly, that modern savages have been known, and prehistoric savages may therefore be supposed, to have occasionally elected their chiefs to their chieftainships upon grounds furnished by their superior fitness for such posts—that is to say, for their superior energy and ability. Some persons may find it difficult to believe this, though such facts are deposed to by most thoroughly trustworthy travellers, such as Baron Osten Sacken. And they may object to accepting it, for, among other reasons, this reason—to wit, that Mr. Galton has shown us in his *Men of Science, their Nature and Nurture*, p. 98, that men of great energy and activity (that is to say, just the very men fitted to act as leaders of and to commend themselves to savages) have ordinarily smaller-sized heads than men possessed of intellectual power dissociated from those qualities.

These objections may have too much weight assigned to them; but we can put our feet on firm ground when we say that in all savage communities the chiefs have a larger share of food and other comforts, such as there are in savage life, and have consequently better and larger frames—or, as the Rev. S. Whitmee puts it, when observing on the fact as noticed by him in Polynesia, a more "portly bearing." This (which, as the size of the brain increases within certain proportions with the increase of the size of the body, is a material fact in every sense) has been testified to by a multitude of other observers, and is one of the most distinctive marks of savagery as opposed to civilisation. It is only in times of civilisation that men of the puny stature of Ulysses or Agesilaus are allowed their proper place in the management of affairs. And men of such physical size, coupled with such mental calibre, may take comfort, if they need it, from the purely quantitative consideration that, large as are the individual skulls from prehistoric graves, and high, too, as is the average obtained from a number of them, it has nevertheless not been shown that the largest individual skulls of those days were larger than, or, indeed, as large as the best skulls of our own days; while the high average capacity which the former series shows is readily explicable by the very obvious consideration that the poorer specimens of humanity, if allowed to live at all in those days, were, at any rate, when dead, not allowed sepulture in the "tombs of the kings," from which nearly exclusively we obtain our prehistoric crania.

M. Broca has given us yet further ground for retaining our self-complacency by showing from his extensive series of measurements of the crania from successive epochs in Parisian burial-places, that the average capacity has gone on steadily increasing.

It may be suggested that a large brain, as calculated by the cubage of the skull, may nevertheless have been a comparatively lowly-organised one, from having its molecular constitution qualitatively inferior from the neuroglia being developed to the disadvantage of the neurine, or from having its convolutions few and simple, and being thus poorer in the aggregate mass of its grey ossicular matter. It is, perhaps, impossible to dispose absolutely of either of these suggestions. But, as regards the first, it seems to be exceedingly improbable that such could have been the case. For in cases where an overgrowth of neuroglia has given the brain increase of bulk without giving it increase of its true nervous elements, the Scotch proverb, "Muckle brain, mickle wit," applies; and relatively inferior intelligence may be supposed to have attached to such brains in former times, and the owners of them would have fared worse then than now. Moreover, the brain-case of hypertrophied brains has a readily recognisable shape of its own. The second suggestion is possible, but not likely, for in cases where we know of simple broadly-convoluted brains, such as those of Bushmen, we find that the skulls containing them are small.

The doctrine of "occipital dolichocephaly" being a characteristic of lower mental power seems to Dr. Rolleston not firmly established. He doubts whether the position of the opening of the ear indicates as much as the users of this expression would wish to connect with it.

After a worthy recognition of the labours of Prichard, a native of Bristol, who has been justly called the father of modern anthropology, the President concluded his interesting address by a

reference to future influence of the labours of the anthropologist. The most important lesson "of the modern study of human progress (for such for all men who think, except the Duke of Argyll, is the study of anthropology) is the folly and impossibility of attempting to break abruptly with the past." Prichard showed in the most palpable way the absurdity of attempting to make civilisation by pattern, and of hoping to produce a wholesome future in any other way than that of evolution from the past.

"What have been called the senile, what could equally well have been called the cynical, Ethics of Pessimism, had not in Prichard's time found any advocates in this country; indeed, so far as I have observed, they are of a more recent importation than most other modern heresies. I do not deny that at times it is possible to give way to certain pressing temptations to think that we are living in a certainly deteriorated and a surely deteriorating age, and that it is hopeless and useless to set up, or look up to, aspirations or ideals. When, for example, we take stock of the avidity with which we have, all of us, within the last twelve months read the memoirs of a man whom one of his reviewers has called a 'high-toned aristocrat,' but whom I should call by quite another set of epithets, we may think that we are not, after all, so much the better for the 3000 years which separate us from the time when it was considered foul play for a man to enact the part of a familiar friend, to eat of another man's bread, and then to lay wait for him. Or can we, in these days, bear the contrast to this miserable spectacle of mean treachery and paltry disloyalty, which is forced upon us in the same history, by the conduct of the chivalrous son of Zeruiah, who, when he had fought against Rabbah, and taken the city of waters, sent for his king who had tarried in Jerusalem, lest that city should thenceforward bear the name, not of David, but of Joab? Or again, as I have been asked, have we got very far above the level of sentiment and sympathy which Helen, an unimpeachable witness, tells us the Trojan Hector had attained to, and manifested in his treatment of her,

'With tender feeling and with gentle words?'

Would the utterance of any modern epic poet have so surely brought tears into the eyes of the noble-hearted boy depicted by Mr. Hughes, as the passage of Homer just alluded to, and characterised by him as 'the most touching thing in Homer, perhaps in all profane poetry put together?' What answer can be made to all this by those who maintain that the old times were not better than these, who maintain the doctrine of Progress, and hold that man has been gradually improving from the earliest times, and may be expected to go on thus advancing in the future? An answer based upon the employment of simple scientific method, and upon the observance of a very simple scientific rule—upon, to wit, the simple method of taking averages, and the simple rule of enumerating all the circumstances of the case. Noble actions, when we come to count them up, were not, after all, so very common in the olden times, and side by side with them there existed, and, indeed, flourished, practices which the moral sense of all civilised nations has now definitely repudiated. It is a disagreeable task, that of learning the whole truth; but it is unfair to draw dark conclusions as to the future, based on evidence drawn from an exclusive contemplation of the bright side of the past. A French work, published only last year, was recommended to me recently by an eminent scholar as containing a good account of the intellectual and moral condition of the Romans under the Empire. I have the book, but have not been able to find in it any mention of the gladiatorial shows, though one might have thought the words *Panem et Circenses* might have suggested that those exhibitions entered as factors of some importance into the formation of the Roman character. It is impossible to go beyond that in the way of looking only at the bright side of things. Still we ourselves have less difficulty in recollecting that there were 300 Spartans sacrificed to the law-abiding instincts of their race at Thermopylae, than in producing, when asked for them, the numbers of Helots whom Spartan policy massacred in cold blood not so many years after, or those of the Melians and Mitylenaeans whom the polished and cultivated Athenians butchered in the same way, and about the same time, with as little or far less justification for doing so. Homer, whom I have above quoted, lived, it is true, some centuries earlier, but living even then he might have spared more than the five words contained in a single line (176 of *Iliad* xxiii.) to express reprobation for the slaughter of the twelve Trojan youths at the pyre of Patroclus. The Romans could applaud Terence's line, 'Homo sum, humani nihil a me alienum puto;' but it did not strike them till the time of Seneca that these noble words were incompatible with the existence of gladiatorial shows, nor till the time of Honorius did they legally abolish those abominations. Mutinies and rebellions are not altogether free from unpleasant incidents even in our days; but the execution of 6,000 captives from a Servile war, in the way that Crassus executed his prisoners after the final defeat of the Spartans, viz., by the slow torture of crucifixion, is, owing to the advance of civilisation, no longer a possibility. If the road from Capua to Rome witnessed this colossal atrocity, there are still preserved for us in its near neighbourhood the remains of Herculaneum and Pompeii to show us what foul exuberance could be allowed by the public conscience of the days of Titus and Agricola to that other form which sits 'hard by Hate.' The man who in those days contributed his factor to the formation of a better public opinion, did so at much greater risk than any of us can incur now by the like line of action. Much of what was most cruel, much of what was most foul in the daily life of the time, had, M. Gaston Boissier notwithstanding, the sanction of their State religion and the endorsement of their statesmen and Emperors to support it. There was no public press in other lands to appeal to from the falsified verdicts of a sophisticated or a terrorised community. Though then as now,

'Mankind were one in spirit,'

freedom of intercommunication was non-existent; no one could have added to the words just quoted from Lowell their complemental words,

'And an instinct bears along,
'Round the earth's electric circle the swift
clash of right or wrong.'

"The solidarity of nations had not, perhaps could not, have been dreamt of—the physical prerequisites for that, as for many another non-physical good, being wanting.

"Under all these disadvantages men were still found who were capable of aspiration, of hope for, and of love of better things; and by constant striving after their own ideal, they helped in securing for us the very really improved material, mental, and moral positions which we enjoy. What they did before, we have to do for those who will come after us."

Section D.—Biological.—Department of Zoology and Botany.

The President, Dr. P. L. Sclater, who is for this year President of the Section, read an address on the present state of our knowledge of geographical zoology. He said, as secretary to the Zoological Society of London, he was not unfrequently requested by members and correspondents to furnish them with the best works on zoology they could consult, and, with the well-stocked library at the Zoological Society, he had not much difficulty in doing so. Great has been the progress of late years towards a more complete knowledge of the faunas of the various parts of the world's surface. Expeditions have been sent out into countries not previously explored, collections formed in districts hitherto little known, and many general works have been published combining the results of previous fragmentary knowledge on this class of subjects. His observations would, however, be confined mainly to the members of the sub-kingdom Vertebrata. He then spoke at great length of zoological distribution in various parts of the earth. Speaking of North Asia, he said that when he called to mind the numerous scientific expeditions sent by the Russians into different parts of their recent acquisitions in Northern Asia, and turned over the pages of the excellent and instructive work in which the results of these expeditions have been given to the world, he must own to a feeling of indignation at the manner in which such matters are usually dealt with by the Government of this country. In the first place, in order to get such an expedition sent out at all, great exertions and special influence are necessary. The Treasury must be memorialised, the Chancellor of the Exchequer besought, and the Admiralty petitioned, before any grant of money can be sanctioned for the purpose, and even then it is too often bestowed in a niggardly and grudging way. When the expedition returns, similar applications have to be made in order to get the results worked out and properly published, and these are in some cases altogether rejected, so that the money already spent upon collecting becomes virtually thrown away. In Russia, although the nation may be less awake to the claims of science than in this country, the Government is certainly more so; and it is to the scientific men attached to the Government expeditions that we are indebted for nearly all the knowledge we possess of the fauna of Northern Asia. There is still much research needed in Africa, and very little is known of Arabia, zoologically or otherwise. A good deal is known of Madagascar, but it is by no means worked out. There have been some remarkable discoveries in China, but little is known of Burmah, Siam, and Cochin. Ornithologists have been specially active in America, but there is no one authority on the fishes of that continent. Of Greenland, which is undoubtedly part of the Neoarctic region, the President has made a separate section in order to call special attention to the "Manual" for the use of the Arctic Expedition of 1875, prepared under the direction of the Arctic Committee of the Royal Society. A *résumé* of all that is yet known of the biology of Greenland is included in this volume. He might call special attention to the article on the birds by Professor Newton, and and on the fishes by Dr. Lütken, both prepared specially for this work. He was sure they would all join with him in thanking the present Government for sending out this new expedition so fully prepared in every way, and in hoping that large additions may be made to the store of information already accumulated in the "Manual." The Central American sub-region was, up to twenty years ago, very little known, but has recently been explored in nearly every part. Much examination is needed of every one of the numerous islands from Porto Rico down to Trinidad. It is strange that no one has been found to attack this interesting subject, which might be easily performed by excursions during the winter months of successive years. That we know more of the fauna of Australia than of other English colonies in different parts of the world is certain; but no thanks are due from us for this knowledge either to the Imperial or to any of the Colonial Governments. The unassisted enterprise of a private individual has produced the two splendid works upon the mammals and birds of Australia which we all turn to with pleasure whenever reference is required to a member of these two classes of Australian animals. In concluding his address the President wished to endeavour to impress upon naturalists the paramount importance of locality. In the study of distribution more probably than in any other direction, with the possible exception of embryology, will be ultimately found the key to the now much vexed question of the origin of species. The past generation of naturalists could not understand the value of locality. A museum was regarded as a collection of curiosities, and so long as the objects were there it little mattered in their eyes whence they came. The consequence is that all our older collections, and even, he regretted to say, our national collection itself, are filled with specimens utterly without a history attached to them, unless it be that they were purchased of a certain dealer in a certain year. Even in the present generation it is only the more advanced and enlightened thinkers who really understand the importance of locality. It was with the hope of impressing the value of locality and distribution more firmly upon them that he had devoted

his address not to the general progress of biology, but to the present state of, and recent additions made to, our knowledge of the geographical distribution of the vertebrata.

Section D.—Biological. Department of Anatomy and Physiology.

The third of the presidential addresses to Section D. was delivered by Professor Cleland, the President of the anatomical division of the Section. His address was devoted to an exposition of the condition of anatomy in a few important particulars. At the outset he made an allusion to physiological study and expressed himself very decidedly on the vivisection question. We quote his remarks:—"I shall be content, therefore, so far as that science is concerned, to mention that, although experimental physiology is probably less cultivated in this country than in any other in which biology is studied, it has been practically decided by Parliament that it is quite time to put some check on investigation in that direction; for, as every one knows, a Royal Commission has been appointed to enquire into vivisection. In the scientific world all are agreed, whatever opinions may prevail in other sections of the community, that the man who would wantonly inflict pain on a brute beast is himself a brute, and deserving to be roughly handled; and because there is no difference of opinion on that subject, and because no experimental science can well prosper if one man is to judge for another what experiments are justifiable to institute or to repeat, or are likely to give important results, I do deplore the clamour which well-meaning persons have raised, and regret that it has been so far yielded to."

In anatomy the most important progress in recent years has been made in those departments which border most closely on physiology, namely, the microscopy of the tissues and development. The whole conception of the nutrition of the body has become altered in comparatively recent years by the additions to our knowledge of the nucleated corpuscles, which are the living elements of which it is composed; and principally by the recognition of the secondary nature of cell-walls, the close connexion or even continuity of the nerves with other textures, and the identity of the white corpuscles of the blood with amoeboid or undifferentiated corpuscles outside the vessels. The origin of every living corpuscle from corpuscles pre-existing is no longer difficult to imagine, but may be almost looked on as proved. The history of each may be traced back through conjugated germs to the corpuscles of preceding generations in uninterrupted succession, and the pedigree of the structural elements is seen to differ in no way from that of individual plants or animals.

The advance of histology in recent years is owing in part to the facility of obtaining good microscopes at moderate prices having brought the study within the reach of a great and increasing crowd of observers. At first the progress of histology was influenced by the steps of improvement in the manufacture of microscopes; but now, for a number of years back, we have been in possession of instruments thoroughly suited for the investigation of tissues; and it will be generally admitted that the highest powers which have been manufactured are not those which have advanced discovery most, or are most likely, in the present state of science, to yield the richest harvest. We appear to be more dependent now on new methods of preparation. Thus, if we go back for a considerable number of years, we cannot but remember what a valuable addition glycerine proved when it came first into use, and what a harvest of discovery followed the introduction of chromic acid. More recently, the methods of transparent injection, of preparing sections by imbedding, the freezing of tissues, the use of carmine and other pigments for staining, the resort to metallic depositions by the use of osmic acid, silver and gold, and a variety of other additions to our means of preparation have produced results of an astonishing kind, which have changed the whole aspect of histology from that which it wore when the President himself first took an interest in the subject.

The President then made some remarks upon the morphology of the Vertebrata. In this field work had not advanced so rapidly. In part this is due to the fact that the doctrine of the origin of species by Natural Selection directed attention more strongly to varieties, and much labour has been spent on making out varieties of muscles, nerves, and other structures. But this doctrine has had a further effect in anatomical study, aiding the reaction against the search for internal laws, or plans regulating the evolution of structures, and directing attention to the modifying influences of external agencies. This effect has happened naturally enough, but it has been far from just; rather is it a pendulum-like swing to a different extreme from what had previously been indulged in. The doctrine of Natural Selection starts with the recognition of an internal formative force which is hereditary; and in the development of the doctrine the limits of hereditary resemblance have been greatly studied; and further, it will be observed that one of the fundamentals of the doctrine is, that the formative force alters its character gradually and permanently when traced from generation to generation in great tracts of time. But while the existence and extensive operation of such a thing as natural selection seems to have been convincingly proved, it is a very different thing to allege that it has been the sole, or even the principal, agent in producing the evolutions of living forms on the face of the earth. So far as anatomy is concerned, it is a secondary matter whether the link between the members of the evolving hosts of life had been genetic or not. But, even pushing the Darwinian theory to the utmost possible extreme, the action of external agents infers the existence of something acted on; and the less directly they act, the more importance must be given to the hereditary or internal element. We are, therefore, presented with a formative force, which exhibited itself in very simple trains of phenomena in the first beginnings of life, and now is manifested in governing the complex growth of the highest forms. We are set face to face with that formative force, and are obliged to admit its inherent capability of changing its action; and that being the case, is it no more of an assumption to declare that the changes are all accidental and made permanent by accident or external circumstance, than to consider that it has been the law proper to this force to have been adequate to raise forms, however liable to modification by external circumstances—to raise them from the simple to the complex, acting through generations on the face of the earth, precisely as it acts in the evolution of a single egg into an adult individual?

The Professor is fully convinced of a unity of plan running through animal forms, and reaching, so far as the main line is concerned, its completion in the human body. He thinks that there is evidence that animal life has reached its predordained climax in humanity, and cannot think it likely that, as myriads of years roll on, descendants differing *in toto* from man will be developed. Even, however, in the nature of the variations in the human race, there seems to be some evidence that the progress of evolution is to be traced from man, not to other animal forms yet to appear, but, through his physical nature, into the land of the unseen. Those variations, keeping out of view differences of bulk and stature, which appear to have some relation to geographical position, are principally to be found in the head, the part of the body most closely connected with the development and expression of the mental character. Some years ago the President came to the conclusion that in uncivilised races there might be distinguished skulls which had undergone hereditary degeneration, others which had reached the most advanced development possible for them, and a third set, notably the Kafirs, with large capabilities for improvement in the future. Indeed, it is beyond doubt that there is a limit for each type of humanity beyond which it cannot pass in the improvement of the physical organisation necessary for mental action. There are also some curious indications in human structure of the formative force nearing the end of its journey. In the details of the skeletons of other animals one sees the greatest precision of form; but there are various exceptions to this neatness of finish in the skeleton of man, and they are found in parts specially modified in connexion with the peculiarities of his development, and not requiring exactness of shape for physiological purposes; while, on the other hand, physiognomical mould and nicety of various physiological adaptations are found in perfection. We may look at the variations in the breast-bone, especially at its lower extremity, which is never shapely, as it is in the lower animals; or at the coccygeal vertebræ, which are the most irregular structures imaginable. Even in the sacrum and in the rest of the column the amount of variations finds no parallel in other animals. In the skull, except in some of the lowest forms of humanity, the *dorsum sellae* is a ragged, warty, deformed, and irregular structure, and it never exhibits the elegance and finish seen in other animals. The curvature of the skull and shortening of its base, which have gradually increased in the ascending series of forms, have reached a degree which cannot be exceeded; and the nasal cavity is so elongated vertically, that in the higher races nature seems scarcely able to bridge the gap from the cribriform plate to the palate, and produces such a set of unsymmetrical and rugged performances as is quite peculiar to man: and to the human anatomist many other examples of similar phenomena will occur.

The President then went on to illustrate the light which homology, as distinct from function, throws upon the study of structure, and gave an historical sketch of the development of our knowledge on this subject.

An interesting point in embryology, referred to last year at Belfast as a probability, he now announces as an observed fact. What is termed the first cerebral vesicle in the early part of the second day of hatching of the chick is an undifferentiated region of the brain, from which a number of parts emerge successively from behind forwards. As early as the thirty-sixth hour the optic nerves can be traced, separated from the rest of the vesicle by distinct elevations of the floor of the brain, reaching inwards to the constriction between the first and second vesicles; and as early as this date the first trace of bifidity of the brain in front may be discerned.

Finally, the President urged the people of Bristol to support their medical school, insisting upon the necessity of giving anatomical science its place in general education. This has been done at Oxford and Cambridge, and was long since done in Scotland. Anatomical studies then would not and could not be, as in many medical schools, a mere senseless cutting up of carcasses.

Section E.—Geography.

The address to the Geographical Section was delivered by Lieutenant-General R. Strachey to a large audience. The President departed from the custom of former occupiers of the chair in the subject of his address, and devoted himself to expounding the doctrine of evolution as applied in the first place to the earth itself; and, secondly, to the inhabitants now found upon it. Geography, he says, is no longer the science of topographical exploration, but is to-day the observation of the manner in which the forces of nature have brought about the varied conditions characterising the surface of the planet we inhabit.

In its modern form geography consists of the study of general laws, which under various local

conditions cause the particular features of each region. Each successive phase of the earth's history has been derived from that which preceded it, under the operation of the forces of nature as we now find them.

This doctrine of evolution, applied by Darwin, Haeckel, and Spencer to the facts of biology, owes its recognition in geology to the teaching of the late eminent Sir Charles Lyell.

The spectroscopic investigation of the sun and stars, and the analysis of meteorites, prove to us that, with possibly two or three exceptions, the elements found on our earth constitute the whole of the heavenly bodies.

These and other facts of a similar nature seem to justify us in concluding that the solar system was formed by the aggregation of matter previously moving in space in the gaseous condition. This aggregation developed internal heat in the aggregating masses, which heat was subsequently lost by diffusion through space.

The earth's surface appears now to have reached a temperature which is virtually fixed, and on which the gain of heat from the sun is, on the whole, just compensated by the loss by radiation into surrounding space.

Such a conception of the earliest stage of the earth's existence is commonly accepted as in accordance with observed facts. It leads to the conclusion that the hollows on the surface of the globe occupied by the ocean, and the great areas of dry land, were original irregularities of form caused by unequal contraction; and that the mountains were corrugations, often accompanied by ruptures, caused by the strains developed in the external crust by the force of central attraction exerted during cooling, and were not due to forces directly acting upwards generated in the interior by gases or otherwise. It has recently been very ably argued by Mr. Mallet that the phenomena of volcanic heat are likewise consequences of extreme pressures in the external crust, set up in a similar manner, and are not derived from the central heated nucleus.

Apart from the movements in its solid crust caused by the general cooling and contraction of the earth, the higher temperature due to its earlier condition hardly enters directly into any of the considerations that arise in connexion with its present climate, or with the changes during past time which are of most interest to us; for the conditions of climate and temperature at present, as well as in the period during which the existence of life is indicated by the presence of fossil remains, and which have affected the production and distribution of organised beings, are dependent on other causes.

The natural phenomena relating to the atmosphere are often extremely complicated and difficult of explanation; and Meteorology is the least advanced of the branches of physical science. But sufficient is known to indicate, without possible doubt, that the primary causes of the great series of phenomena included under the general term climate are the action and re-action of the mechanical and chemical forces set in operation by the sun's heat, varied from time to time and from place to place, by the influence of the position of the earth in its orbit, of its revolution on its axis, of geographical position, elevation above the sea-level, and condition of the surface, and by the great mobility of the atmosphere and the ocean.

The intimate connexion between climate and local geographical conditions is everywhere apparent; nothing is more striking than the great differences between neighbouring places where the effective local conditions are not alike, which often far surpass the contrasts attending the widest separation possible on the globe. Three or four miles of vertical height produce effects almost equal to those of transfer from the equator to the poles.

The difficulties which arise in accounting for the phenomena of climate on the earth as it is now, are naturally increased when the investigation is extended backwards to geological periods. And to account for these seeming discrepancies, the theory formerly in vogue assumed violent departures from the observed course of nature. More recently philosophers prefer to assume the action of known causes through immense periods of time.

The close relation existing between the least specialised animals and plants, and between these and organic matter not having life, and even with inorganic matter, is indicated by the difficulty that arises in determining the nature of the distinction between them.

Certain forms of life are found associated in certain areas, and as we pass from one such area to another we find the forms of life change also. The action of the environment on the forms of life is an essential portion of the Doctrine of Descent due to the genius of Darwin, and is included in the operation of those causes he calls Natural Selection.

Applying the same theory to long periods of past time, we are brought to the conclusion that the directing forces which have been efficient in developing the existing forms of life from those which went before them, are those same successive external conditions, including both the forms of land and sea, and the character of the climate, which have already been shown to arise from the gradual modification of the material fabric of the globe as it slowly attained to its present state. In each succeeding epoch, and in each separate locality, the forms preserved and handed on to the future were determined by the general conditions of surface at the time and place; and the aggregate of successive sets of conditions over the whole earth's surface has determined the entire series of forms which have existed in the past, and have survived till now.

These conclusions manifestly afford no clue to the origin of life; they only afford us a glimpse through the dim vistas of antiquity. The ancient monuments of Egypt take us back a period of possibly 7,000 years to a state of society not greatly different from that which existed under the dominion of the Romans 1,500 years ago. How long it had taken to produce that civilisation, who can say?

Man occupies a conspicuous position in the front rank of the animate world. Yet for this position he is indebted, not to any exclusive powers of his own, but to the wonderful compelling forces of nature, which have lifted him entirely without his knowledge, and almost without his participation, so far above the animals of which he is still one, though the only one able to see or consider what he is.

The picture thus drawn presents to us our earth carrying with it, or receiving from the sun or other external bodies, as it travels through celestial space, all the materials and all the forces by help of which is fashioned whatever we see upon it. We may liken it to a great complex living organism, having an inert substratum of inorganic matter on which are formed many separate organised centres of life, but all bound up together by a common law of existence, each individual part depending on those around it, and on the past condition of the whole. Science is the study of the relations of the several parts of this organism one to another, and of the parts to the whole. It is the task of the geographer to bring together from all places on the earth's surface the materials from which shall be deduced the scientific conception of nature. Geography supplies the rough blocks wherewith to build up that grand structure towards the completion of which science is striving. The traveller is the journeyman of science, and if travellers are to fulfil the duties put upon them by the division of scientific labour, they must maintain their knowledge of the several branches of science at such a standard as will enable them thoroughly to apprehend what are the present requirements of science, and the classes of fact on which fresh observation must be brought to bear to secure its advance. Such knowledge as will fit a traveller for usefully participating in the progress of science is now placed within the reach of every one. The lustre of that energy and self-devotion which characterises the better class of explorers will not be dimmed by joining to it an amount of scientific training which will enable them to bring away from distant regions enlarged conceptions of other matters beside mere distance and direction. How great is the value to science of the observations of travellers endowed with a share of scientific instruction is testified by the labours of many living naturalists. In our days this is especially true; and all who desire to promote the progress of geographical science as explorers, should prepare themselves for doing so efficiently, while they yet possess the vigour and physical powers that so much conduce to success in such pursuits.

Section F.—Economic Science and Statistics.

Mr. James Heywood, the President of the Section, delivered an address dealing chiefly with local statistics and trade. He condemned the French sugar bounty, and expressed a hope that some remonstrance would be addressed to the French Government. The educational charities of Bristol are considerable, and the President devoted a considerable part of his address to an account of the new scheme for their management. This brought him to the proposed new College for the city, which is attracting much attention.

A promise has been given, on the part of Balliol College and New College, Oxford, to assist in the establishment and support of the proposed College by means of a yearly contribution of 300*l.* each for a period of not less than five years, on condition of each Oxford college being represented on the governing body of the new institution, of the instruction given being literary as well as scientific, and of the requirements of adult education being specially considered. It is also provided that, as far as can be arranged, the instruction, other than that of the medical classes, shall be open to women, and that lectures shall be given on general subjects.

Section G.—Mechanical Science.

The proceedings of this Section are always of general interest, but have attracted this year even more than ordinary attention. The sittings are presided over by Mr. William Froude, whose Introductory Address drew together a large audience. The fact, moreover, that the President of the Association is this year an engineer, had brought together a strong muster of persons distinguished in mechanical science. Mr. Froude's Address was remarkable for being illustrated by diagrams and experiments. His object was to elucidate the fundamental principles which govern the behaviour of fluid, with special reference to the resistance of ships. By "resistance" is meant the opposing force which a ship experiences in its progress through the water. Improved results in ship-building have certainly been obtained through accumulated experience, but the theories by which the results are interpreted are so often interwoven with fundamental fallacies as to lead to mischievous results.

The resistance experienced by ships is of course a branch of the general question of the forces which act on a body moving through a fluid, and has been placed in an entirely new light by what is commonly called the theory of stream-lines. The President then stated the conclusions at which he had arrived by experiments, and the paradoxical statement that a fish or similar body moving through a perfect fluid meets with no resistance greatly surprised his listeners.

It is convenient, said the President, to consider first the case of a completely submerged body moving in a straight line with uniform speed through an unlimited ocean of fluid. A fish in deep water, a submarine motive torpedo, a sounding-lead while descending through the water, if

moving at uniform speed, are all examples of the case now dealt with.

It is a common but erroneous belief that a body thus moving experiences resistance to its onward motion by an increase of pressure on its head end, and a diminution of pressure on its tail end. It is thus supposed that the entire head end of the body has to keep on exerting pressure to drive the fluid out of the way, to force a passage for the body, and that the entire tail end has to keep on exerting a kind of suction on the fluid to induce it to close in again—that there is, in fact, what is termed plus pressure throughout the head end of the body, and minus pressure or partial vacuum throughout the tail end.

This is not so; the resistance to the progress of the body is not due to these causes. The theory of stream-lines discloses to us the startling but true proposition, that a submerged body, if moving at a uniform speed through a perfect fluid, would encounter no resistance whatever. By a perfect fluid is meant a fluid which is free from viscosity, or quasi-solidity, and in which no friction is caused by the sliding of the particles of the fluid past one another, or past the surface of the body.

The property which is described as "quasi-solidity" must not be confused with that which persons have in their minds when they use the term "solid water." When people in this sense speak of water as being "solid," they refer to the *sensation* of solidity experienced on striking the water-surface with the hand, or to the reaction encountered by an oar-blade or propeller. What is here meant by "quasi-solidity" is the sort of stiffness which is conspicuous in tar or liquid mud; and this property undoubtedly exists in water, though in a very small degree. But the sensation of solid reaction which is encountered by the hand or the oar-blade, is not in any way due to this property, but to the *inertia* of the water: it is in effect this inertia which is erroneously termed solidity; and this is possessed by the perfect fluid as fully as by water. Nevertheless it is true that the perfect fluid would offer no resistance to a submerged body moving through it at a steady speed. It will be seen that the apparent contradiction in terms just advanced is cleared up by the circumstance that in the one case we are dealing with steady motion, and in the other case with the initiation of motion.

The proposition that the motion of a body through a perfect fluid is unresisted, or, what is the same thing, that the motion of a perfect fluid past a body has no tendency to push it in the direction in which the fluid is flowing, is a novel one to many persons; and to such it must seem extremely startling. It arises from a general principle of fluid motion—namely, that to cause a perfect fluid to change its condition of flow in any manner whatever, and ultimately to return to its original condition of flow, does not require, nay, does not admit of, the expenditure of any power, whether the fluid is caused to flow in a curved path, as it must do in order to get round a stationary body which stands in its way, or to flow with altered speed, as it must do in order to get through the local contraction of channel which the presence of the stationary body practically creates. Power, it may indeed be said, is first expended, and force exerted to communicate certain motions to the fluid; but the same power will ultimately be given back, and the force counterbalanced, when the fluid yields up the motion which has been communicated to it, and returns to its original condition.

The truth of this statement is thus shown. A perfect fluid can exercise no endways force in flowing through a curved pipe of uniform section, since it is obvious that in the absence of friction or "drag" upon its walls, the only force exerted is at right angles to the wall. If then stream-lines of uniform sectional area be supposed to flow past a submerged body of a fish-like shape they will evidently exert no endways pressure.

But pipes of uniform sectional area do not represent truly the flow of a fluid past the submerged body: it is needful to suppose that the area is changed as the streams are diverted, and, therefore, this case needs a further explanation.

Here again Mr. Froude surprised a large part of his audience with a paradox:—It is, he thought, a very common but erroneous impression, that a fluid in a pipe exercises, in the case of its meeting a contraction, an excess of pressure against the entire converging surface which it meets, and that, conversely, as it enters an enlargement a relief of pressure is experienced by the entire diverging surface of the pipe. Further, it is commonly assumed that, when passing through a contraction, there is in the narrow neck an excess of pressure due to the squeezing together of the fluid at that point.

These impressions are in no respect correct; the pressure at the smallest part of the pipe is, in fact, less than that at any other point, and *vice versâ*. This may be shown thus:—

If a fluid be flowing along a pipe which has a contraction in it, the forward velocity of the fluid at the narrow part must be greater than that in the wide part, in the proportion in which the sectional area of the pipe is less; and, therefore, while passing from one to the other the forward velocity of the fluid is being increased. This increase of velocity implies the existence of a force acting in the direction of the motion; that is to say, each particle which is receiving an increase of forward velocity must have a greater fluid pressure behind it than in front of it; for no other condition will cause that increase of forward velocity. Hence a particle of fluid, at each stage of its progress along the tapering contraction, is passing from a region of higher pressure to a region of lower pressure, so that there must be a greater pressure in the larger part of the pipe than in the smaller, and a diminution of pressure at each point corresponding with the diminution of sectional area; and this difference of pressure must be such as to supply the force necessary to establish the additional forward velocity required at each point of the passage of the fluid through the contraction. Consequently, differences of pressure at different points in the pipe depend simply upon the velocities at those points, or, in other words, on the relative sectional areas of the pipe at those points.

It is simple to apply the same line of reasoning to the converse case of an enlargement. Here the velocity of the particles is being reduced through precisely the same series of changes, but in an opposite order. The fluid in the larger part of the pipe moves more slowly than that in the smaller, so that, as it advances into the enlargement, its forward velocity is being checked; and this check implies the existence of a force acting in a direction opposite to the motion of the fluid, and each particle being thus retarded must therefore have a greater fluid pressure in front of it than behind it; thus a particle of fluid at each stage of its progress along a tapering enlargement of a pipe is passing from a region of lower pressure to a region of higher pressure. As is well known, the force required to produce a given change of velocity is the same whether the change be an increase or a decrease. Hence, in the case of an enlargement of a pipe, as in the case of a contraction, the changes of velocity can be satisfied only by changes of pressure, and the law for such change of pressure will be the same, *mutatis mutandis*.

By the insertion of pressure-gauges in a pipe of varying diameter with a stream of water passing through, it is seen that a constriction actually is a space of low pressure, and an expansion a space of high pressure.

But in all cases where a pipe after expansion or contraction returns to its original size, the endways effects of the pressure of the fluid neutralise each other, and the pipe is not acted upon so as to be moved forward by the flow.

Then, by combining the cases thus analysed, we obtain material for the treatment of the original question.

A combination of such streams, when taken together, constitute an infinitely-extended ocean, flowing steadily past a stationary submerged body; and here the combination of curved streams surrounding the body, which together constitute the ocean flowing past it, return finally to their original direction and velocity, and cannot administer to the body any endways force.

The argument in this case is, in reality, precisely the same as that in the case of the contractions and enlargements in pipes; for, in fact, the flow of the ocean past the stationary submerged body is only a more general case of the flow of fluid through a contracted pipe; but, though the cases are really the same, there is considerable difference in their appearance; and, therefore, it is necessary to point out how the arguments already used apply equally to this case.

Every particle of the fluid composing the ocean that passes the body must undoubtedly follow some path or other, though we may not be able to find out what path, and every particle so passing is preceded and followed by a continuous stream of particles all following the same path, whatever that may be. We may, then, in imagination, divide the ocean into streams of any size and of any cross-section we please, provided they fit into one another, so as to occupy the whole space, and provided the boundaries which separate the streams exactly follow the natural courses of the particles.

In the constitution of the ocean flowing past the stationary body it is manifest that the streams forming this system must not only be curved in order to get out of the way of the body, but might each require to have to some extent a different sectional area, and therefore a different velocity of flow at different points of their course. If we trace the streams to a sufficient distance ahead of the body, we shall there find the ocean flowing steadily on, completely undisturbed by, and, as we may say, ignorant of, the existence of the body which it will ultimately have to pass. There, all the streams must have the same direction, the same velocity of flow, and the same pressure. Again, if we pursue their course backwards to a sufficient distance behind the body, we shall find them all again flowing in their original direction; they will also have all resumed their original velocity; for otherwise, since the velocity of the ocean as a whole cannot have changed, we should have a number of parallel streams having different velocities, and therefore different pressures side by side with one another, which is an impossible state of things in a perfect fluid.

Although, in order to get past the body, these streams follow some courses or other, various both in direction and velocity, into which courses they settle themselves in virtue of the various reactions which they exert upon one another and upon the surface of the body, yet ultimately, and through the operation of the same causes, they settle themselves into their original direction and original velocity. Now, the sole cause of the original departure of each and all of these streams from, and their ultimate return to, their original direction and velocity, is the submerged stationary body; consequently the body must receive the sum total of the forces necessary to thus affect them. Conversely this sum total of force is the only force which the passage of the fluid is capable of administering to the body. But we know that to cause a single stream, and therefore also to cause any combination or system of streams, to follow any courses changing at various points both in direction and velocity, requires the application of forces the sum total of which in a longitudinal direction is *zero*, as long as the end of each stream has the same direction and velocity as the beginning. Therefore the sum total of forces (in other words the only force) brought to bear upon the body by the motion of the fluid in the direction of its flow is *zero*.

But water is not a perfect fluid, and offers, as we well know, a resistance to ships.

The difference between the behaviour of water and that of the theoretically perfect fluid is twofold, as follows:—

1. The particles of water, unlike those of a perfect fluid, exert a drag or frictional resistance upon the surface of the body as they glide along it. This action is commonly termed surface-friction, or skin-friction; and it is so well known a cause of resistance that nothing further need be said on this point, except this, that it constitutes almost the whole of the resistance experienced by bodies of tolerably easy shape travelling under water at any reasonable speed.

2. The mutual frictional resistance experienced by the particles of water in moving past one another, combined with the almost imperceptible degree of viscosity which water possesses, somewhat hinders the necessary stream-line motions, alters their nice adjustment of pressures and velocities, and thus defeats the balance of stream-line forces and induces resistance. This action, however, is imperceptible in forms of fairly easy shape. On the other hand, angular or very blunt features entail considerable resistance from this cause, because the stream-line distortions are in such cases abrupt, and degenerate into eddies, thus causing great differences of velocity between adjacent particles of water, and great consequent friction between them. "Dead water," in the wake of a ship with a full run, is an instance of this detrimental action.

In addition to this there are waves formed from the excess of pressure in the stream-lines at the ends of the ship and a defect of pressure in the middle. These waves being established spread sideways and constitute a very distinct loss of power. Waves represent energy or work done, and all the energy represented by the waves wasted from the system attending the ship is so much work done by the propellers which urge the ship, and so much waste per mile of travel.

The interest of these investigations lies in assistance to be derived from their application to ship-building. Surface friction is the largest item of a ship's resistance; the eddy resistance is reduced by fair water-lines to an imperceptible amount; while the wave loss or resistance depends mainly upon length and speed. In order to reduce this loss a ship should be very long; on the other hand, to reduce surface or skin friction she should be shortened. Thus, as commonly happens in such problems, we have to reconcile conflicting methods of improvement, and to work out any given case actual quantities must be known.

Experiments on wave resistance are being carried on by Mr. Froude for the Admiralty, the object being to determine the wave resistance for varieties, water-line, cross-section, and proportion of length, breadth and depth.

FINE ART.

THE FRENCH NATIONAL COLLECTION OF PRINTS.

Le Département des Estampes à la Bibliothèque Nationale. Par le Vicomte Henri Delaborde, Conservateur. (Paris: Plon, 1875.)

Two noteworthy books—a Life of Ingres, and a Life of his greatest pupil, Hippolyte Flandrin—have proved not only that M. Delaborde knows his subjects—which is one thing, but that he knows how to write about them—which is another. Special papers, appearing from time to time in art periodicals, have shown something of his capacity to elucidate a master or a school. The book before us—a history of the Paris Print Room—will add to M. Delaborde's reputation. There is never an immense public for reading about Art, and of such public as there pretends to be, a portion demands to have its interest retained by the introduction of matter that has little to do with the professed subject of study. Now M. Delaborde keeps entirely to the professed subject of study. You must care really for that subject if you are to care for his work. But then he does not presume upon your care so much as to dispense with the fulfilment of the writer's proper task.

Half of the book is occupied with an historical notice of the rise and progress of the Department over which M. Delaborde presides, and in this historical notice he has given us passages which throw a curious and interesting light on what it was that art-collectors—those, above all, of Paris in the seventeenth and eighteenth centuries—sought for in the works which they amassed: what qualities they valued; how far they were guided by the antiquarian spirit; how far by the love of beauty. The second half of the book is otherwise occupied. Any one who has strolled into the print-rooms at the Bibliothèque Nationale will remember that hung upon the walls, in favourable places, are etchings and engravings of all the principal schools. The like of it we have in London, in that great gallery at the British Museum known as the King's Library, where in 1868 Mr. Reid arranged on screens and table cases a selection of great prints, representative at the same time of Mr. Felix Slade's munificence and of the work of nearly all the schools from Peregrino da Ceseno to the interpreters of Reynolds. The prints hung up in the Paris Bibliothèque Nationale are equally, though of course differently, representative, and it happens oddly enough that while the prints on view in Paris include no example of the great engraver's work—the *Liber Studiorum*—of our greatest landscapist, the prints on view in London include no example of the etchings of the great French landscapist with whom Turner delighted to be measured. Yet some of Turner's prints, half etching, half mezzotint, and some of Claude's prints, wholly etching, are avowedly among the noblest or most exquisite products of the engraver's art. Yet, whatever has been omitted in each case, much that is admirable has been exposed. And M. Delaborde has occupied the second half of his book with what professes to be a catalogue of the works shown on the walls in Paris. Now as with very few exceptions all the great engravers are represented on these walls, and as M. Delaborde has given of each engraver represented a succinct and lucid account, besides supplying special notes on each separate work exposed, it follows that the second half of the book is not only a very interesting, very instructive guide to the treasures on the walls, but an excellent handy-book, and brief, and necessarily incomplete, dictionary of engraving.

In comparison with our British Museum Print Room, the Paris "Département des Estampes" is a very old institution. I am informed that the English Print Room hardly began to be important among large collections till about fifty years ago, when great acquisitions were made under the leadership of Josi. But the Département des Estampes was already important in 1667, and its actual beginning dates from 1656. At that time, one Jacques Dupuy—a now forgotten *savant*—left to his King's library an assemblage of prints; but these count for little when set against the enormous collection of the Abbé de Marolles, which Colbert in 1667 made up his mind for the country to acquire. The collection of the Abbé de Marolles was not only large, but admirably representative. It numbered 123,000 pieces—roughly speaking, was then a larger collection than the British Museum's was only twenty-five years ago—and it included all classes of work. For the Abbé was a wide-minded amateur. He had absorbed into his collection—upon which he is supposed to have expended the whole of his means—the special collection of one Claude Maugis, an almoner of Marie de Medicis, whose care was solely for the works of Dürer, and the special collection of one Charles Delorme, a fashionable physician of the time of Louis Treize, whose care was for the work of Callot. In our day, when most great prints are rare and costly, no one whose riches are not considerable is to be blamed for being so far a specialist as to collect the works of one master only, but De Marolles, in the days of Louis Quatorze, did wisely for himself and wisely for all who followed him, in laying hands on all that came within his reach; and when we consider the limited intercourse at that epoch between nation and nation, the difficulty of transit, of voyage, even of the transmission of knowledge, it will seem to be a proof of very noteworthy energy and spirit and power of appreciation that De Marolles got together the impressions from the *nielli* of the Italian masters of the fifteenth century, and the anonymous productions of some old German masters to add to the early French work and to Albert Dürer's works acquired by those of whose cabinets he had become possessed, and to add too to the Dutch etchings at that moment issuing from the presses of Amsterdam. In all there were 300 pieces by the elder Italians, 500 by the elder Germans, and endless examples of the sixteenth century—Dürer, Marc Antonio, and Lucas van Leyden. And all these treasures, passing into the hands of the State, were duly catalogued or classified by the old Abbé. Colbert wrote to a traveller in the Levant, begging him to bring back fine leathers with which to bind the volumes—they may still be seen in the National Library, each print stamped with De Marolles' mark.

Two other prominent figures in the early history of the Paris Print Room demand a little notice. These are Monsieur Clément and M. de Gaignières. Clément was a collector of portraits. "In the prints," writes M. Delaborde, "with which Clément filled his portfolios, signs of talent were not what he cared for the most; perfection of execution did not attract him sufficiently to make him give pre-eminence to this." It mattered little whether the work before him was a master's work or a bungler's, provided it gave with some slight show of accuracy the image of the person whose portrait he wanted to have. A contemporary writer

reproached him, rightfully enough, from the point of view of art. But Clément left the Bibliothèque Nationale no less than 1,800 portraits, and among these it would be difficult not to find a considerable number both rare and fine. De Gaignières also—the second man of whom we speak—was too purely an antiquary, but he rendered curious service. A collector of old prints, he also busied himself in travelling over France with an artist charged to copy public and private monuments of every kind—things as various as tombstones and coats of arms—and all he had amassed either by his own industry or by the work of another he gave, in view of his death, to his master the King, stipulating only that he should enjoy the possession or the custody of his own gift while he still lived. He was generous too early, and paid the penalty of rashness, for they sent servants and guardians to watch narrowly that he did not abstract any part of the collection, and the poor man died with these lynx-eyed guardians prying about him, in token of the Royal appreciation of his gift.

Among the great French collectors of the eighteenth century none stood so high, when judged by the artistic worth of his collection, as Pierre-Jean Mariette. His treasures were not all of his own bringing together, for his father and grandfather had passed priceless possessions into his hands, but to these he had largely added. The Empress of Austria, the Empress of Russia, the King of Prussia, the Elector of Saxony, had pressed him to dispose of his cabinet. But he was a patriot; he kept his works for public sale in his own country, and he lost nothing by his patriotism. He did not lose, but his country did not sufficiently gain; for those who held the purse-strings at that day—the year was 1775—were long in making up their mind as to how far they would go. Joly, the Keeper of the Prints, wanted to buy the whole collection, and he pronounced the Minister's refusal "a deplorable misfortune." He wrote begging at least for a liberal allowance with which he might go to the auction, but the answer was tardy, and when it came the excellent M. Joly had seen with grief many fine things scattered. But with what was given him he did his best to recover the ground during the last days of the sale. He managed somehow to buy over 12,000 pieces, among which were many "first states" of the etchings of Claude and of Van Dyke—prized then as now. To these were added, in 1784, the etchings of Rembrandt, collected by the painter Peters: in all, 728 pieces. The number averages about a couple of impressions of each etching in Rembrandt's work. It includes a few things the like of which the British Museum does not possess, but the British Museum collection of Rembrandt's work is on the whole allowed to be of even finer quality. This is the last great acquisition we need name. The Paris Print Room had by that time taken a position which, as a whole, it would be difficult if not impossible for any subsequent efforts, made elsewhere, to disturb. Its general wealth was likely to remain unequalled; its wealth in historical and topographical illustrations was specially peculiar; and now M. Delaborde assures us that in the department of topography alone the collection over which he presides includes three hundred and fifty volumes, of which seventy-two are devoted to Paris.

In the second part of his book—the *catalogue raisonné* of exhibited prints—M. Delaborde has not ventured very much into criticism. For the most part he has supplied needful and exact information in a convenient form. There are great artists whom he has wisely abstained from extolling, but he has not abstained invariably. With a very just appreciation of the influence of fashion on our care for works of art, he has been chiefly laudatory of masters who are not at present in vogue. Watching contemporary tastes, he has felt, for instance, that though Rembrandt's work, like all the work of genius, will still repay careful analysis, it is not, being now in the full light of favour, in any need of common and brief praise. This brief praise, which is all that he can give within the compass of his small and compact volume, he has reserved for others more in want of it; and not at all obtrusively, but quite incidentally, here and there, he has directed our attention to the great French engravers of the seventeenth century—the chief of them Robert Nanteuil and Gérard Edelinck. A writer of verse, a man of pleasure, a man who lived only to be middle-aged, Nanteuil nevertheless found time to engrave two hundred and twenty portraits. Thirty are life-size. It is true he had assistants to work with him, but Nanteuil, says M. Delaborde, "se réservait toujours l'exécution des têtes. Aussi, de ces nombreuses pièces ainsi gravées en collaboration, n'en est-il pas une seule où l'on ne reconnaisse avant tout la main du maître et où ne prédominent les témoignages de son rare talent." I have named Edelinck among the French engravers; M. Delaborde places him in the list with the Flemish. He was born at Antwerp in 1640, but was only twenty-five when he came to Paris, and after forty years of working there he died at the Gobelins, in a lodging provided by the king. Among his works—"véritables chefs-d'œuvres pour la plupart," says M. Delaborde, here, as elsewhere, wisely insisting on the distinction of names not now the most fashionable—the greatest is perhaps the reproduction of that Holy Family of Raphael called at the Louvre the "Vierge de Fontainebleau," or "de François Premier." Of this the Paris Print Room owns and exhibits an example the like of which is to be found only in Berlin and Vienna.

Another great engraver now hardly adequately valued, and with the additional claim of one whose work was often original, is Cornelius Visscher. Reproducing, as best he might, now a *Susannah and the Elders* of Guido, now a *Deposition* from Tintoret, now an interior from Ostade, and now idealising from the heads he saw about him till he had given to the Dutch print-lovers his own conceptions of the four Evangelists, Visscher is found, perhaps, at his strongest and best in one great original work, called *The Pancake Woman*, of which a magnificent example is to be seen in our own Museum—No. 42 in that catalogue of Visscher's works which Mr. William Smith brought out some years ago in a now defunct periodical—*The Fine Arts' Quarterly*. Particulars of Visscher's life, further than that the life was probably short, and that it was spent mostly at Amsterdam—where the Clément de Jonghe, whose mysterious face is known by Rembrandt's etched portrait, published his prints—particulars, of his life, I say, are hard to seek; but his work is open to all. It is interesting to see the rich and significant indications of colour, the masculine certainty of hand, and how in treating an Ostade-like subject, his types rose above Ostade's level; his children, at all events, were other than the Dutch dumplings of that day. The present is the place in which to mention his name, and not to attempt characterization of his work. But of all the Dutch engravers of the seventeenth century—the great genius of Rembrandt alone excepted—Visscher, in the opinion of M. Delaborde, is the one whose prints "the most deserve attentive inspection and lasting reputation." And that opinion, of no mean judge, one may serviceably chronicle ere leaving a book not only valuable as a record of facts, but fertile in subjects for comment, and in suggestions for study.

Frederick Wedmore.

THE TRINITÀ DI CAVA MONASTERY.

Cava dei Tirreni: August 18.

Among Benedictine monasteries in Italy most eminent and famous, in order second only to Monte Cassino, is that of *Trinità di Cava*, situated among the rocky heights of that south-westward branch of the Apennines which extends from the beautiful bay of Salerno to the promontory of Sorrento. No scenery could be more suited to inspire and nourish devout meditation in fervent and religious minds than that solitude of rock-girt glens and primeval forests amid which stand the immense buildings of this monastery, which dates from the early years of the eleventh century. Though not exempted from the law of suppression, and now officially recognised only in the character of a public institution, with library, archives, and pinacotheca, it is at present inhabited by twelve Benedictine monks, eight being professed *padri* in holy orders, under a mitred abbot; and is still the locale of a seminary, where thirty-four young alumni are now studying for the ecclesiastical career; also of a college for secular studies, where thirty-four students are now receiving instruction from lay masters, who reside on the premises, for classical and modern languages, drawing, and other accomplishments. The library, containing 10,000 volumes, of which about 600 are *princeps* editions, and the more celebrated Archivio, are now in the strictest sense public, open to visitors, as also to students, of both sexes who desire to read here, from 9 A.M. to 3 P.M. daily. Among gems of the library is a Bible of the seventh century, written in five different characters; and here also is the codex of Longobardic Laws, tenth century, an abstract of which was for the first time published by Carlo Troya in his great work on the Italian Middle Ages. Sixty MS. volumes, some with beautiful illuminations, are placed on the shelves, though the special wealth of the monastery in that class fills the storehouse of the famous Archivio. According to the catalogue, which has been carefully compiled, these archives contain 757 diplomas of Princes and bulls of Popes conferring possessions or privileges on this monastery, 103 Greek, and 13,353 Latin codices on parchment, besides a vast number of documents on linen paper, not yet completely classified or reported on—"avanzi della veneranda antichità"—as Muratori calls this far-famed "Cavense" collection.

The well-lighted hall containing these archives was built in 1781. Mabillon (*Iter Italicum*), describing this monastery as he found it in his tour 1685–6, tells us that the Archivium had been admirably put in order (*optime ordinatum*) fifty years previously by a monk named Augustinus, who had distributed the entire contents in four volumes. What sort of *volumina* were thus made so marvellously capacious, the learned tourist does not describe. Carlo Troya, Ughelli, and Filangini (in the *Scienza della Legislazione* of the last), made much use of these inedited documents in the compiling of not-to-be-forgotten volumes; and Muratori found here many of the originals edited in his *Rerum Italicarum Scriptores*. These treasures will henceforth be brought within the reach of students in distant lands, thanks to a welcome publication, the result of the labours of learned monks at the Trinità di Cava cloisters. In eight volumes (quarto) are to be edited all the important codices of the Archivio; the *Codex Diplomaticus Cavensis*, as this work is entitled, having been commenced by five Benedictine fathers, among whom Don Michele Morcaldi is chief directing editor, in 1872, and the first volume printed at Naples in the year following. A long historical preface in Latin in ten parts, by the above-named Don Michele, forms an interesting introduction, and thoroughly acquaints the reader with the origin, the annals and vicissitudes of this Benedictine establishment, sufficient mention being also made of the art-works, pictures, statuary, repairs of building in church and monastic residences, due to the liberality and good taste of successive lord abbots. The third volume of the *Codex Diplomaticus* is nearly ready for the press; and each is to contain five well-executed chromolithographic facsimiles of as many MS. originals; each being sold separately at the relatively moderate cost of 30 fr. I was glad to see in the printed lists of subscribers for this publication the names of certain Ministers of our Government, the Directors of the British Museum, and the Society of the Inner Temple. It is well to bear in mind the names of the other learned *padri* co-labourers with Don Michele Morcaldi in this work, and alike appointed to the office of Custodians in this Archivio: Rossi, De Stefano, and Schiavo, who have dedicated themselves to palaeographical studies, and, since the suppression, formed what may be called a school of palaeography in this secularised cloister. The hitherto published volumes are placed in the library for the benefit of the students now admitted without restrictions; and I must bear testimony to the attention paid by those who serve to the comforts of those who read in this quiet *bibliotheca*. Some illuminated codices, especially an Officium of the Blessed Virgin, with an exquisite miniature, on the page exposed to view (the Circumcision, graceful in design, and in tints most brilliant), by Fra Giovanni Angelico, are seen in glazed cabinets within this library; and specimens of the most curious contents of the Archivio are shown to all visitors by *employés* forbidden to accept fees for their services.

A restoration of the Trinità church was begun in 1853, but unfortunately left unfinished. Its actual façade, together with the narrow sides (where is the chief entrance) of the monastic buildings, was raised by an abbot who held his office from 1772 to 1793. Nothing is there to commend in the modern structure here before us. On the contrary, we see in this example one of the many jarring oppositions to the character of mediaeval antiquity, which strike us so often as unpleasant and unintelligible in the later ecclesiastical architecture of Italy. The interior of this church, though spacious and lofty, is neither solemn nor beautiful. It contains, indeed, a profusion of such rich material, veined marbles, alabaster, and porphyry, gilt, bronze, and Florentine mosaics, as are becoming but too familiar in modern Italian cathedrals and basilicas; while, pitifully contrasted with all these pomps, much of the building at the opposite extremities is left unfinished, without stone or marble to clothe the bare walls on which stucco is become green from mildew, and in many parts is gradually peeling off. An architect was sent by the authorities about three years ago to inspect and report; but nothing has been done, no subvention granted, for works so desirable, though certainly not very expensive, as the completion and repairs here requisite. There are, however, some relics of the mediaeval period of fine art and architecture, dating within the thirteenth, fourteenth and fifteenth centuries, still fortunately preserved, and now more easily to be seen than was once the case on these monastic premises. In a vestibule through which we pass into the church, we see some good *rilievo* sculpture, half-length figures of the Blessed Virgin, St. Joseph, St. Matthew, and another Apostle; also some sarcophagi with antique Roman sculptures on their fronts, and the marble tomb of Sibylla, wife of the Norman king Roger I. of Sicily. Several mediaeval sculptures from the ancient church, and a large marble vase, said to be of the Longobardic period, from the *impluvium* (or *atrium*) exterior to the sacred place, are now seen in a large hall within the monastery. Among the *rilievi* sculptures may be mentioned the Massacre of the Innocents, the *motif* of the tragic scene ably though quaintly represented; also some good half-length figures of Apostles, and a Madonna and Child, the Mother seated and wearing a crown, which reminds one of the earliest Pisan school. Finest of all is a half-length *rilievo* of an Apostle holding an open book, now placed in a corridor opposite the entrance to the picture-gallery. This *pinacotheca* has been formed since the suppression, and contains 127 pictures formerly scattered about the buildings or in the church. Among them there are several by an artist little known beyond the vicinity of his native place—Andrea Sabatino (called A. da Salerno), who lived from 1480 to 1545. This artist, who was a distinguished pupil of Raffaele, passed through phases marked by much difference of sentiment and manner. His earlier, and I think more impressive, style and conception are recognised in the Imprisonment of St. Peter and the Release of that Apostle by the Angel, also the Martyrdom of St. Juliana (beheaded in the fourth century), among the pictures here before us; while the painter's later manner is seen in other compositions, as in his Judgment of St. Benedict, the venerable saint pronouncing sentence between certain of his monks who stand before him. Sabatino spent much time in this cloister, engaged on paintings for its church by the same liberal abbot, who adorned that sacred building with several terra-cotta groups by Domenico of Naples, a contemporary artist well known in his peculiar walk. The *pinacotheca* in question contains some works of the later Roman and Neapolitan schools, by Corenzio, Solimene, and Sassoferrato, also a Virgin and Child ascribed to Giunta Pisano. Leaving this locale, we may notice the elaborately-wrought sculptures on the marble jambs and lintels of the doorway, a mediaeval relic, with two tiny figures of angels introduced among details of ornamentation.

C. I. Hemans.

(*To be continued.*)

P.S. I wish to correct a mistake unfortunately made in my notice of the St. Paul's Basilica (Academy, July 31 last). Mentioning the ancient portals, in part saved from the fire, 1823, I described them as "wooden," instead of bronze. They were precious examples of the damasquine work of the eleventh century, from Constantinople, with figures inlaid in silver outlines on a bronze ground. Mabillon (*Iter Italicum*) gives the inscription, now lost, remarkable for the place there assigned to the Archdeacon Hildebrand, only next to the Pope, Alexander II., whom he succeeded as Gregory VII.

PROGRESS OF THE DECORATIVE ARTS.

Paris: Aug. 20, 1875.

I have often borne testimony in these columns to the general sympathy inspired by M. Ph. de Chennevières as Director of the Fine Arts. We are not speaking here of his direct relations with artists, some of whom must very probably have grave reproaches to cast in his teeth when they see some work, with which the ungrateful administration has declined to adorn our Museums, return to their studios after the closing of the Salon. We are forgetting, too, a more serious matter, the political programme which he flaunted in our faces by submitting the plan for the religious decoration of the Pantheon for the Minister's signature; and will recall only his intelligent and minute critical works on the history of the provincial artists of France in early times. For the moment we see nothing but his desire to create, by the side of the Institute, another system of art-teaching, more appropriate to the traditions of our race, fomenting healthy antagonism in the great departmental centres, restoring its originality to our school, and capable of saving the great French interests of art applied to industry, now so seriously menaced by the funds which rival nations are devoting to technical instruction, and to the foundation and maintenance of special libraries and museums.

The distribution of prizes to the pupils of the National School of Drawing and Mathematics, took place on August 11. This school was founded in the latter half of the eighteenth century by Bachelier, the painter. Under the earlier years of the Empire it had for its director a man of eminence, M. Lecocq de Boisbaudron, who has published (Paris: Morel) several pamphlets on education, which are the wisest, most healthy, most practical, and most ingenious contributions in France to the scientific treatment of these high matters. His practice is even better, if better can be. He has trained pupils such as Alphonse Legros, Fantin, Solon (now at Minton's), Guillaume Régamey (who died last year of consumption), Ferrier, winner of "the Grand Prix de Rome" two years ago, and so forth. I regret to say that he was ungratefully dismissed from his post under the Empire at the very moment when his instruction was bearing its best fruits. The blow was struck at his school just as his pupils were beginning to take a course parallel to the Ecole des Beaux-Arts, and to attract attention at the Salon by a doctrine based on the direct study of nature, and on the normal development of the individual faculties. One day M. Lecocq de Boisbaudron proposed to experiment in public; he offered the Institute to choose four pupils from his own studio and four pupils from the Ecole, to shut them up in a room, and set the whole eight to draw from memory a statue which they were to have been previously allowed to study carefully for a fixed time. The Institute declined.

M. de Chennevières is anxious to make this School a nursery of good professors for artists applying their natural faculties and solid instruction to industrial pursuits. Thereby a serious and useful object would be set before the rising generation; the bent of false vocations would be rectified; a stop would be put to the present alarming multiplication of semi-talents that exhaust themselves in an inglorious struggle, and exhaust the Fine-Arts budget, too. Fashion or speculation, by heedlessly attaching the same price, during the later years of the Empire, to the raw works of beginners and the tried productions of recognised masters, has enervated our rising generation. How is a reaction against this overmastering current to be brought about? Only by offering to men of reflective and laborious temperament a more assured future in high artist instruction. M. de Chennevières has touched upon a yet more delicate point in the programme of modern societies, and I cannot do better than quote his own words:—

"Il faut bien convenir que, par ses applications de

toute sorte et de tous les moments, le dessin entre, plus que l'histoire et la géographie, dans les nécessités quotidiennes de l'homme; le dessin est la base de toutes les industries et de tous les métiers; il sert au menuisier et au forgeron, au serrurier et à l'arpenteur, au charron et à la brodeuse, à la dentelière et au jardinier, au tapissier et au bijoutier, à tous les ouvriers de profession avant de servir au sculpteur, au peintre, et à l'architecte. Et c'est le comte Delaborde qui disait, dès l'exposition de Londres, en 1851, que tout homme devait apprendre le dessin au même titre que l'écriture, et devait l'apprendre pensait-il, sans beaucoup plus de peine, l'écriture étant en elle-même une sorte d'exercice du dessin."

As you know, in Japan, every one can write and draw. It is assuredly to this reason before all others that the originality of the smallest objects of art, manufacture, or pure fancy is to be attributed. It is evident that such a country as France would derive immense advantages from the diffusion of drawing among her humblest schools, and the next Assembly will have to devote its most earnest attention to the organisation required. The amalgamation of the Direction des Beaux-Arts with the general administration of Public Instruction, though strongly urged ever since 1848, only dates from 1870.

This speech, brim-full of policy in the highest sense of the word, was greatly applauded by the youthful students to whom it was addressed. It is profitable to make the young generations feel the part which they are called to play in society, whatever be their condition. It is a proof of great good-sense on the part of the Director of Fine-Arts, who is not a fierce Revolutionary, not even a Radical, to have broken with aesthetic commonplaces, and to have boldly shown that the beautiful is no more to be separated from the useful than strength from liberty. It is one of the surest symptoms of the work that is in progress below the surface in France. At the distribution of prizes in many places speeches were made to the young students couched in language worthy to make them reflect on the evil pass to which France is now reduced for having unlearnt the art of thinking for twenty years, worthy to make them hunger and thirst after a regeneration against which a thousand foes without and within are obstinately set. Your political journals have, I believe, chronicled this fact. They have also mentioned that, wherever the ceremony was held under the presidency of reactionary magistrates, whether in the country or the capital, those magistrates only received from the pupils a silent and icy welcome.

In this speech, allusion was repeatedly made to the "Central Union of Fine-Arts applied to Industry," to the services which it has already rendered, and to those which we have a right to expect from it.

The "Central Union" has just lost its President, by the resignation of M. Guichard, who was one of its founders in the most honourable acceptation of the term. He was a man of energy and intelligence, firm even to obstinacy under an easy exterior. He has had to struggle against many obstacles in our country, where men who combine for a common purpose become the object of suspicion to the multitude as much as to those in power. He possessed the art of raising funds, bringing together men of intellect, appeasing ambitions that might have compromised him. He has lavished his health, and, I believe, lavished his time as well, which was most valuable during the years of struggle. When the ground was cleared, new ambitions arose to view, which demanded, with his consent or without, to be allotted a share. Little by little, the position of President became intolerable. Happily the institution was stronger than the men. Besides, whatever it is sought to found follows the same law: if it be a religion, it will have blood: if it be a common enterprise, ingratitude.

The "Central Union," which is chiefly known in England by its exhibition of works of art ancient and modern, has already done much good. It is beginning to develope in the public mind the notion that there exists an artistic movement apart from mere commonplace production, which is patronised year by year by the Administration by means of the official Salons and of commissions to artists. This is a point of the first importance; the most violent blow struck at the ancient edifice. There is no evidence of antagonism, and the result is but the more certain. An art more homely, more nervous, more Gaulish may spring from these efforts that do their work so noiselessly. Thus, the Union has founded a travelling prize, to be awarded to the successful pupil in certain fixed subjects. This travelling prize was gained in 1869 by M. Léon Chédeville. The young sculptor was unable to commence his tour till September, 1874, when he started for Normandy. He has written a number of letters to M. E. Guichard, dated from Andelys, Rouen, Dieppe, containing sketches wherever the pen became powerless to express landscapes or things, noting down the real aspect of architectural works or of ruins in their central home, showing feelings, now of noble indignation, now of fine juvenile enthusiasm. So he who left a sculptor returns to us almost an architect. And what a noble task was that, when on his return, he had to set clearly down all these momentary impressions, to classify his recollections, to control them by the generalisations of criticism, to support by proofs adduced by pen or pencil that frank and unceasing admiration for the whole of our French Gothic art, or even for the art of our early Renaissance, of which the young artist had scarcely heard a single word whispered in our schools. Assuredly in him we have a soul steeped in the pure and vigorous perfumes of its native air and native art —for it is all one. Can the urchins say as much that the Institute picks out and fattens, just as the augurs picked out and fattened the sacred fowls; who waste in a dead city, in the study of a dead art, four of their years of manhood and of thought? Assuredly we do not preach exclusiveness. We hinder no man from going to the north or to the south, to the mist or to the sun, to the memories of the past, or the enigmas of the present. But we know into what sort of hole-and-corner, into what a depth of disdainful idleness academic instruction has led the most light-hearted and most various schools of the peoples of the West.

The Central Union publishes (at its offices, 3 Place des Vosges), beside the pamphlet quoted above, the documents relating to the fifth Exhibition, which it proposes to open next year.

The Exhibition of 1876, held like previous Exhibitions at the Palais de l'Industrie, will be divided into three groups:—

(1) Competition for the schools of Paris and the departments.

(2) Exhibition of works of art composed for the purpose of industrial reproduction, and modern products of art industries.

(3) Retrospective Exhibition.

The last section deserves particular attention. Last year's Exhibition was not well combined. In taking for its subject the general history of costume in all times and among all peoples, it said either too much or too little. It was confused, and brought no real profit. But this year the programme is better defined. It will include:—

(1) Specimens of chambers, comprising decoration, furniture, and objects of every-day domestic use, from the Middle Ages to the nineteenth century.

(2) The exhibition of architectural drawing belonging to the Commission of Historic Monuments.

The competition for the schools is set forth in a remarkable Report signed by M. A. Racinet, member of the Consultative Commission. It decides upon the formal rejection of copying from engravings. Another very important point is that the competition will take place between pupils, in fixed subjects, and not between schools—a system which led to serious cases of jobbery.

We shall have to return to the organisation of the Retrospective Exhibition. We see with pleasure that it is to be accompanied by technical lectures by persons of authority. PH. BURTY.

THE AUTUMN EXHIBITION AT LIVERPOOL.

We gladly draw attention to the fact that the Liverpool Corporation's annual exhibition of pictures has been opened this week. It will be recollected that this exhibition is managed directly by a special sub-committee of the Town Council, and it is gratifying to know that this management has succeeded in inspiring confidence into the artists, and in securing the good will of the inhabitants of the township and district. This is the fifth collection which has been thus presented to the Liverpool public, and the pecuniary results, which are after all a fair rough-and-ready test of success, are so good that the Corporation has been enabled to enrich their permanent gallery by several thousand pounds' worth of paintings, purchased with the net proceeds of these exhibitions.

It is, of course, the desire of the Committee to collect together as many of the noteworthy pictures of the year as possible, in order to give such of their townsmen as do not visit London a chance of seeing some of the choicest ornaments of the year's Academy, and we notice with unfeigned pleasure that our painters have not been slow to recognise the efforts made in the cause of art, and that many old friends grace the walls of the Liverpool Museum. Mr. Armitage's *Julian the Apostate* occupies a prominent place, as is right in a town where religious feeling and controversy runs high. Mr. Leighton's *Slinger*, and Mr. Goodall's *Rachel and her Flock* will practically bring home the wondrous East to the Liverpool toilers, and show them that the sun may be a reality. We are sure that the popular instinct will show itself to be true, and that the truly national and historical character of Mr. Herkommer's *Greenwich Pensioners* will daily attract a crowd around it. Though more of "caviare" to the many, Mr. Poynter's *Festival* and *Golden Age* will command the attention of the students of art, and Mr. Cook's *Devastation* must act as a magnet on a town whence so many "go down to the sea in ships."

Academy pictures by Poole, Pettie, Duncan, Prinsep, Gilbert, Ouless, Morris, and other chiefs of rank and name, attest the fact that the corporation has been diligent in gathering together the material for forming a taste for art among their fellow-townsmen.

Among the very best works exhibited are, however, very many which have either been specially painted for this exhibition or never exhibited before. Mr. Alma Tadema has sent a pure antique gem entitled *A Nymphaeum*. A fine female figure stands in the foreground; she is bearing clothing into the marble bath, where a number of bathers are disporting themselves; a lovely blue sky completes the picture, which conveys an idea of beauty and sunshine and Italy.

Mr. Hemy has sent three pictures, all of them evidently studied and completed in the free air of heaven. One of them, *The Pool on the Beach*, is the brightest painting we have ever seen by this promising young artist. It is an English south-coast scene pourtrayed to the life, and that by a hand that knows and loves the beautiful Devonshire nooks and inlets; another, a study in a wood, is a marvellous effort at rendering the poetry of trees: there they are from birth to death—the sapling, the great oak, and the fallen tree with the woodman over it. Mr. Calderon has contributed a very sweet little idyll in colours—a dear little maiden in a clean white gown standing among the ruins of a temple; the landscape proclaims the scene to be Italian, and the dress is of antique fashion. The picture is entitled *Her Eyes are with her Heart*; the possessor thereof—shepherd or centurion—would be an enviable Roman. Mr. Prinsep has sent a sort of sequel to his *Minuet*, a

graceful girl saying goodbye or goodnight to a youth at the foot of a lordly staircase; both are dressed in the costume of good Queen Anne, and neither gown, coat, breeches, nor figures leave anything to be desired. *The Overture*, by Mr. Holyoake, gives us a charming group of English girls, "as sweet as English air can make them, they."

An *Ariadne* by Mr. Richmond, powerfully drawn and painted, will, we fancy, introduce this artist to the Liverpool public. We hear that a design by him for the decoration of the Council Chamber is at present being considered, and it is a good thing that the town should have a chance of seeing his work.

Marc Antony and Field, Raven and Dawson are all well represented by good landscapes, and Mr. Lehmann has sent a charming child nursing a kitten to support his well-earned reputation in Liverpool. Mrs. Jopling's *Elaine* deserves mention, as also does Mr. Lestre's *Return from the Fair*. Mr. Staniland's *Caught*, a young girl and her soldier lover detected by a stern father, will awaken the interest which such a situation forcibly and naturally rendered always inspires; the soldier is evidently penniless, and the girl is pretty, while the parent looks rich.

Mr. Morris, in addition to his Academy picture, has sent another, *Whereon they Crucified Him*—a Hebrew mother holding up a Hebrew child in front of a cross—there is nothing particular about the cross, and the rock on which it stands cannot be meant for Calvary. Mr. Perugini would have best consulted his rising reputation by not allowing *Divided Interest* to be exhibited, for no one can take any interest in the vulgar, bold woman's face which bears the above title.

We are sorry that our space does not admit of our doing any sort of justice to the water-colour rooms. They contain much that is admirable. Mr. Hine's and Mr. Hartland's drawings are especially good. Mr. Hine is full of unpretentious good taste, and Mr. Hartland has given us a fine cornfield, contrasting pleasantly with his melancholy peat mosses, well rendered though they be. Messrs. Wade, Eden, Waite, Dodson, Hayes, Finnie, and many others have contributed really good work, and Mr. Danby has sent one of his happiest delineations of water and hillside. We also notice fine drawings by Linton and Oakes.

The water-colour room contains a portrait, in oils, of Holman Hunt, by himself—it is forcible and may be truthful, but it is not beautiful, and the Eastern garb in which the painter is clothed does not suit the very Saxon character of his hair and eye.

Mr. Stanhope's drawing of *Charon* is too droll not to be mentioned—two figures which we suppose are meant for Pyramus and Thisbe, or any other pair of lovers faithful in death, but which look as if they had been starved to death, stand hungrily embracing each other's emaciated form, while they gaze towards Charon, who is approaching through a long grotto that reminds one of the Surrey Gardens.

In closing this brief notice we sincerely wish the Liverpool Corporation every success in their good work, and congratulate the committee on the class of pictures they have brought together, and, *mirabile dictu*, on the good taste and impartiality with which they have hung them.

F. G. Prange.

NOTES AND NEWS.

Messrs. Seeley and Jackson announce a second series of etchings from the National Gallery, consisting of twelve proof-plates on Japanese paper, of which only 100 copies will be printed. The notes on the pictures will be written by R. N. Wornum.

The same publishers have also in the press a handsome quarto volume containing eighteen engravings from pictures in the National Gallery, with notes, likewise by R. N. Wornum.

It is said that as many as 367 competitors have sent in designs for the new French postage stamp.

The Louvre has trusted its collection of original sketches by Michel Angelo, not photographs of them merely, for exhibition at the forthcoming festival.

The inauguration of the monument to Chateaubriand at St. Malo will take place on September 5.

The Salon at Brussels was opened on August 22.

Mrs. Charles Heaton writes to us in correction of her note on "Mr. J. B. Waring's drawings at the South Kensington Museum," which appeared in the Academy of August 7, that she finds she was mistaken in saying they had not been examined and that "there was no present intention of exhibiting them." She has learnt on good authority that a selection of them will be exhibited as soon as possible.

M. Wallon, the Minister of Public Instruction in France, has recently presented to the Art Library of the South Kensington Museum a copy of a very extensive and important publication of the Archives of the Commission of Historical Monuments in France.

The present rage for Venetian glass is but the revival of an Elizabethan fashion. In a passage introduced into the second edition of Harrison's *Description of England* (1586, A.D.), which Mr. Furnivall is re-editing for the New Shakspere Society, the worthy parson says:—

"It is a world * to see in these our daies, wherin gold and siluer most aboundeth, how that our gentilitie, as lothing those mettals (bicause of the plentie), do now generallie choose rather the Venice glasses, both for our wine and beere, than anie of those mettals or stone wherin before time we haue beene accustomed to drinke; but such is the nature of man generallie, that it most coueteth things difficult to be atteined; & such is the estimation of this stuffe, that manie become rich onelie with their new trade vnto Murana (a towne neere to Venice situat on the Adriatike sea), from whence the verie best are dailie to be had, and such as for beautie doo well neere match the christall or the ancient *Murrhina vasa*, whereof now no man hath knowledge. And as this is seene in the gentilitie, so in the wealthie communaltie the like desire of glasse is not neglected, whereby the gaine gotten by their purchase is yet much more increased to the benefit of the merchant. The poorest also will haue glasse if they may; but sith the Venecian is somewhat too deere for them, they content themselues with such as are made at home of ferne and burned stone; but in fine, all go one waie, that is, to shards at the last, so that our great expenses in glasses (beside that they breed much strife toward such as haue the charge of them) are worst of all bestowed in mine opinion, bicause their peeces doo turne vnto no profit."

Then, repeating the hint of Roger Bacon, which the late makers of hammerable glass have carried out in other wise, Harrison goes on:—

"If the philosophers stone were once found, and one part hereof mixed with fortie of molten glasse, it would induce such a mettallicall toughnesse therevnto, that a fall should nothing hurt it in such maner; yet it might peraduenture bunch or batter it; neuerthelesse that inconuenience were quickelie to be redressed by the hammer. But whither am I slipped?"

We have received the first number of a publication issuing from the house of Messrs. Sampson Low, Marston and Co. It is called *Studies from Nature*, and consists of four large and good photographic views of English scenery, with accompanying letterpress. A slope in Knole Park, with its famous beeches, a spot in Penshurst, a giant tree—such as Mr. Macallum might paint—and the old pier at Lynmouth, have been selected for representation. There are many people with whom this comparatively literal reproduction of English landscape will no doubt be very welcome.

Thanks to the *Bullettino della Commissione Archeologica Municipale* of Rome (No. 1, 1875), it is now possible without going to Rome to form an independent opinion, so far as that can be done from photographs, of the marble statue of Venus, which was found on the Esquiline last December, and was at the time the object of much attention. Three different views of the statue are given on plates 3–4. On plate 5 is an engraving of it as restored. The text is by C. L. Visconti, and the conclusion at which he arrives is that the statue is a copy made in later times from the original marble statue of Venus by Scopas, which stood in the temple of Mars near the Circus Flaminius. He is no doubt right in pointing out the discrepancy between the severe archaic rendering of the head, and the fleshly but rather coarse treatment of the body; and it will be admitted that the latter furnishes conclusive proof of the figure having been executed in Roman times. The same phenomenon occurs among other statues and groups—(1) in the group of Orestes and Electra in the Villa Ludovisi with the name of the sculptor Menelaus, a pupil of Stephanus; and (2) in the statue in the Villa Albani from the hands of Stephanus, who calls himself a pupil of Pasiteles, doubtless the celebrated sculptor of that name in the time of Caesar, whence this combination of archaism in type of head with realism, sometimes refined and sometimes coarse, in the study of the body and in drapery has come to be regarded as characteristic of the school of Pasiteles. That he chose this archaic type of face (and generally also of attitude) in deference to the tastes of the Romans of his day is very possible, and it is also not unlikely that he chose the type of one particular master, as, for instance, of Polycletus, for his figures of athletes or youthful heroes like Orestes. But it seems clear that he cared only to preserve a general resemblance. In the same way the sculptor of the Venus of which we are now speaking may have undertaken to reproduce the head and even the attitude of the original statue by Scopas; but it is more probable that the archaism which he has thrown into the head was simply an affectation of archaic severity to suit the tastes of his times: in which case his times would fall towards the end of the Republic or beginning of the Empire. Besides, there is no evidence of Scopas having retained an archaic manner in rendering the face.

We have received a copy of the rules of the new Bristol and Gloucestershire Archaeological Society, to which Mr. John Taylor referred in his article on Bristol in No. 172, and of which, indeed, he is the originator. The list of members already includes the following names:—The Duke of Beaufort, Earl Ducie, Lord Fitzhardinge, Lord Sherborne, the Bishop of Gloucester and Bristol, Bishop Clifford, the Mayor of Bristol, the Dean of Bristol, Archdeacon Randall, Dr. J. Beddoe, F.R.S., and many others. Mr. J. P. Hallett, M.D., has undertaken the duties of secretary. It is intended by the Society to hold indoor and outdoor meetings for the study of the antiquities of the district, to form a library and museum, and to publish papers on antiquarian topics.

We are happy to learn that, independently of the grant of an annual pension of 4,000 marks (200*l.*) to Herr von Bandel by the German Emperor, it is in contemplation to raise a fund by general subscription in Germany for the purpose of presenting a testimonial to the sculptor.

The art correspondent of the *Kölnische Zeitung* speaks in highly commendatory terms of a portrait of a lady in a princely harem at Constantinople, by Mdme. Jerichau Baumann, at present in the Art Loan Exhibition at Cologne. The artist, whose fate it has been to pass from the zenith to the nadir of popularity, is now regaining public favour, and by her Oriental *genre* pictures, and her portraits of Turkish and Italian women, has secured a place of mark in her profession which promises to be permanent.

* A well-known expression for our "wonder" in the like phrase.

A new lady portrait-painter, Fräulein Hedwig Greve, has appeared at Düsseldorf, some of whose pictures are pronounced by German connoisseurs to be equal to the works of Franz Hals, in regard of simplicity of design, truthfulness, and firmness of handling.

It is reported by the *Journal de Genève* that a picture which had long disappeared from the church of the Sisters of Mercy at Chêne-Bourg, and of which no traces had been found for more than twenty years, has now been discovered in the house of a painter of Carouel, named Gevril, whose recent death had led to an examination of his property. This picture, representing a man writhing in convulsions at the feet of a priest, was known as the "Possessed," and was esteemed as a work of considerable merit; unfortunately, however, it has been much injured since its removal twenty-five years ago from the church at Chêne-Bourg, and the head of the old man, which is obviously a copy of the Murillo in the Cathedral of Seville, has been cut out, and was found in a lumber-room of Gevril's house nailed to a wooden slab.

The *Gazzetta Ufficiale* of the 20th ult. publishes by royal decree the establishment in the Collegio Romano, where has been located for these last two centuries the Museo Kircheriano, three other museums, the Museo Preistorico, Museo Italiano, and the Museo Lapidario, or Epigrafico. In the last will be collected together all the ancient inscriptions which are daily found in and about Rome.

A new exhibition has lately been added to the fine collections of the Musée d'Artillerie, comprising the French military decorations. They are divided into two groups, the French distinctions, and those given to French soldiers by foreign Powers. In the first group are the Collar of the St. Esprit, the Cross of St. Michael, and the Orders of St. Louis and of Military Merit, distinctions reserved exclusively for officers, and the medal for veterans created by Louis XV. for non-commissioned officers. Then follow the insignia of the Legion of Honour in all its various modifications, and the different decorations created by the various Governments which have succeeded each other since the beginning of the present century. The collection will prove most useful to painters, as well as of great historic interest.

The attention of the Italian Ministry was recently drawn to the continual abstraction that goes on of valuable books, manuscripts, and works of art from the Italian monasteries, more especially from those under the Roman jurisdiction. Energetic measures, it is said, will have to be taken to prevent this branch of industry from being still carried on, for the monks and nuns have found it so profitable that they will not willingly relinquish it. Not only illuminated manuscripts, choral books, small paintings, embroideries, and images, have been made objects of traffic, but in some cases, in expectation of the dissolution of the monastery, even colossal altar-pieces have been taken down from their places, and have found their way into the hands of Paris and London dealers. Large conventual libraries have also been disposed of in the same manner; and, to add to the scandal, it is said that hundreds of chests of unknown contents have been sent out of the Vatican itself provided with the Papal seal, and by this means allowed to pass free of search and duty, and have been expedited to Civita Vecchia, to be sent away on French ships. This exportation and sale of works of art in Italy has certainly declined somewhat of late years, but the decrease of traffic is supposed to be owing more to the exhaustion of the objects of sale than to any conscientious motives. Any supervision that may now be exercised on the part of the Government will be only, it is to be feared, shutting the stable door when the steed is stolen.

In the *Zeitschrift für Bildende Kunst*, Dr. Alfred Woltman reaches the ninth chapter of his "Tour in Alsace" (*Streifzüge im Elsasz*). In this, having finished with the cathedral, he gives a short descriptive history of the other churches in Strassburg, two of which, St. Stephen's and St. Thomas's, are of almost equal importance in the history of church architecture. The early German sculpture in the St. Wilhelms Kirche is also critically studied, and an illustration given of the grand monument to the Landgraves Ulrich and Philipp von Werd, one of the finest works of the kind of German art in the fifteenth century. Viollet le Duc refers to it several times in his *Dictionnaire du Mobilier Français* as affording in the armed figures of the Landgraves a perfect example of the chain-armour of the period. As a contribution to the biography of Cornelius, W. Roszmann publishes some letters written by that artist to his friend the historian Niebuhr, between the years 1818 and 1821. These letters were not known to Ernst Förster when he published his life of Cornelius. They are written chiefly from Italy, but are not as interesting as it might be supposed that letters from a great artist in Italy would be to a dear friend (*Theurer Herzensfreund* he calls Niebuhr) at home. Many of them merely refer to money matters, commissions, &c. The unbounded reverence that Cornelius had for Niebuhr is, however, clearly apparent in them. In one, he writes, "I rejoice to think of the time when I shall see you again and hang on the words of your mouth. Never did I meet with a man with whom true virtue and wisdom dwelt as with you. I would that our fatherland recognised this as I do."

In contradiction to Crowe and Cavalcaselle's opinion that the town of Verona remained unfruitful as regards art until the second half of the thirteenth century, Herr Hubert Janitschek cites some ancient frescoes that still exist in an old battlemented tower, the only portion that remains of a grand monastery, formerly situated near the church of St. Zeno in Verona. In this ruined monastery, kings and emperors used at one time to be entertained, and these dilapidated frescoes seem to have formed the decoration of a great banqueting-hall. Only one of them can in any sense be said to be preserved, and even this is so greatly injured as to be scarcely discernible. Herr Janitschek, however, makes out its subject to be a Roman Emperor receiving a deputation from the East, and from various inductions draws the conclusion that it was painted in the year 1236 or 1237. The other articles of the number are the continuation of the translation of Lermolieff's *Galleries of Rome*, and the continuation of Rosenberg's "Activity in Building in Berlin." The art is not remarkable—a hard-outlined youthful portrait of Cornelius, and an etching of some dead game from a picture by Weenix.

We stated some months ago that a commission composed of several well-known artists, archaeologists, and directors of museums had been appointed by the Prussian Government to enquire into the best mode of preserving and cleaning plaster casts. The rapid deterioration of the casts from antique models in the Museum of Berlin gave rise to the enquiry, but the question is one of wide interest, and its solution would meet the wants of many museums beside that of Berlin. Everyone knows the dirty and spotted appearance presented by plaster casts which have been long exposed to the influences of the atmosphere. It is almost impossible to prevent this as they are at present prepared, except by applying periodically some process for cleaning; but all the cleaning processes now in use are apt to have an injurious effect on the cast, by destroying the delicacy of its outline and also by altering its colour. These results would be avoided by using some material for the cast that would admit of easy and safe cleaning; and it seemed to the Berlin Commission that the best method for arriving at this material would be to open a competition and offer a prize for its discovery. This has now been done, and a prize of 300 marks is offered by the Prussian Government for a method of cleaning ordinary plaster casts without destroying in any way their tint or delicacy of outline; and another prize of 10,000 marks for the discovery of a material having the same advantages as plaster, but possessing sufficient hardness to permit of periodical cleanings without submitting the cast to any previous treatment. Several inventions purporting to accomplish this have been brought forward of late. One was mentioned in the Academy, January 2, 1875, patented by a German merchant and the curator of the Munich Museum; but none, it would seem, are entirely successful; so that a plastic material that shall combine all the advantages of plaster with greater strength and durability, and a surface that admits of safe cleaning, still remains to be supplied.

A catalogue has just been published by the firm of P. Gouda Quint, at Arnhem, of the works of Jacobus Houbraken, the eminent Dutch engraver of the seventeenth century, of whom Raphael Morghen wrote: "Jamais graveur n'égala et n'égalera probablement, dans la manière d'imiter par le burin les chairs et la chevelure, le Hollandais Jacques Houbraken."

Jacobus Houbraken, born at Dordrecht in 1698, was the son of Arnold Houbraken, the biographer, and, we may add, the traducer, of the Dutch painters. His *Groote Schouwburg der Nederlandsche Konstschilders en Schilderessen*, published in 1753, laid the foundation of the belief that the Dutch masters were all, as Ruskin expresses it, "bred in the fumes of the taverns of the North," whereas many of them who have been thus vilified have since been proved to have been sober and respectable citizens honestly painting their flat fields and cattle and homely wives and daughters, a far wiser occupation after all than seeking second-hand inspiration from Italy and her masters. The portraits of these much misrepresented Dutch masters were engraved by Jacobus Houbraken for his father's work, and are among his most interesting productions. Beside these, the present catalogue enumerates more than 500 portraits of distinguished persons in Holland and elsewhere that were the work of his skilled burin. Among them are the so-called "Birch-Heads," an historical work containing portraits, or, as the frontispiece puts it, *Heads of Illustrious Persons of Great Britain. Engraved by Mr. Houbraken and Mr. Vertue; with their Lives and Characters by Mr. Thomas Birch, A.M., F.R.S.*, published in London in 1743–52. The head of Catherine Howard, wife of Henry VIII., in this series, is especially highly esteemed by connoisseurs. Herr ver Huell, the compiler of the catalogue, tells us that it was his great admiration for the delicate modelling and incomparable relief of this portrait that first led him to seek to do justice to the engraver by preparing a description of his works. A pleasant portrait of Houbraken himself, at the age of fifty-one, forms the frontispiece of the catalogue. There is another, also executed by himself, at the age of seventy-one; for the vigorous engraver lived to be eighty-two, and practised his art to the last year of his life. Like many of the masters of the seventeenth century, he has fallen of late years somewhat into oblivion. It is probable, however, that this excellently prepared catalogue will revive an interest in his work.

At the meeting of the Academy of Inscriptions on the 20th ult., the report of the commission appointed to consider the claims of candidates for the Fould prize was read. This prize is of the value of 20,000 francs, and is to be awarded for the best History of the Arts of Design from the earliest times to the age of Pericles. The commission had received during the present year no work written with a view to this prize in which the subject was treated as a whole, and therefore postponed the award for three years, in accordance with the regulations. A sum, however, equal to the interest of the capital sum for three years was

awarded to Mr. James Fergusson for his *History of Architecture*, and in consideration of his five other works relating to the history of the arts, on stone monuments in all countries, the palaces of Nineveh and Persepolis, the rock-cut temples of India, illustrations of ancient architecture in Japan, and tree- and serpent-worship.

The "Prix de Numismatique" of the French Institute, founded by Allier de Hauteroche, has been awarded (*double*) to Mr. Head, Assistant Keeper of Coins in the British Museum, for his *Chronological Sequence of the Coins of Syracuse*. This work, although only published last year, is now out of print.

The first volume of the Catalogue of Oriental Coins in the British Museum, by Mr. Stanley Lane Poole, comprising the coinage of the Eastern Khaleefehs, is just published. The second volume is already in the press.

In the report recently presented by the city of Brussels to the Conseil Communal of Belgium, it was proposed that a universal exhibition should be held in Brussels in 1880 to celebrate the fiftieth anniversary of Belgian independence.

THE STAGE.

THE REVIVAL OF "FROU-FROU."

Frou-frou has been revived at the Gymnase Theatre, and, in the absence of important productions in London, this revival has naturally been the chief theatrical event of the week. Mdlle. Delaporte has assumed for the first time in Paris the part played by Mdlle. Desclée in Paris and Brussels, and, as our readers will remember, last of all in London. *Frou-frou* is one of those pieces that will hardly bear keeping long: its qualities are apparent from the first, and its defects are at the first overlooked by reason of its piquant pourtrayal of certain details of the life of its own day. But the portraiture is superficial: the allusions, clear at first, grow dim, dimmer, and are gradually lost: the satire is on manners, not on men, and so has little that can make it endure. It takes quieter work than this—and work less instantly attractive—to make a permanent success: to speak for ten years hence as well as for to-day: for to-day as well as for ten years ago. And *Frou-frou* cannot do that; nor can any kindred work of glittering *soi-disant* realism—any work conceived on its plan, or executed on its level. *Frou-frou* and the like of it may be associated with a six months' success, and the triumph of a given actress. But as a piece of literary art it cannot live. As in very many of the novels and plays that jump into immediate popularity with readers ignorant of art and life—though sometimes learned in books—something is lacking of the very first importance; probability has been sacrificed to effect, and there have been hardly any to perceive it. The main characters go through a series of interesting experiences, which imply, not the consistent inconsistency of human nature, but a different wanton changefulness, obeying no natural law, but the law that a work must be immediately effective, at whatever brutal sacrifice of art and truth. Gilberte, the heroine of *Frou-frou*, is, for all the cleverness of its authors, an impossible person. A butterfly woman, so incapable of serious attachment, would never have gone away—even from her husband—for more than a dozen hours at a time. An elopement to Venice would have been quite beyond her range: Meilhac and Halévy, who can see keenly enough the humours of a certain world, have seen that as soon as she got there she would wish to come back, and so they have made her long for the boulevard and the theatre. But she would never have got to Venice at all. An afternoon at Meudon would have been quite enough for her. Again, in her first youth and freshness, when not even a love for Valréas—who loved her himself between a fancy for La Baronne and one for "la grande Charlotte"—divided her from her child, she was without affection for that child—the very moment when love for the child, if it came at all, was sure to have come. Subsequently she went away to Venice—Meilhac and Halévy wishing to take her there for purposes of melodrama—and upon that, and her own repentance for going, is developed a maternal love. You cannot live on sunsets and on gondolas. Valréas is a bore, and the Place Saint Marc monotonous. Was there not a husband? Was there not a child? These good folks must be somewhere or other. Happy thought!—tardy development of maternal affection, and touching scene with white pocket handkerchiefs at the end of the play.

And Henri?—the grave husband: a diplomatist, a man of the world: a man for whom *la grande Charlotte* has no attraction. Is it because the *grande Charlotte*, and the like of her, have no attraction for him that he is to be so entirely a fool in his dealings with his wife? A mere bookworm might of course be that—a Casaubon, a Dr. Pangloss, a Dryasdust. But a man of action, a diplomatist, a man of the world? Is it not again impossible?

And Brigard, father of the two young women, father of the earnest Louise and the volatile Gilberte—is he much more natural? His audacious adventures are the theme of comment which serves no artistic purpose in the play. His adventures are episodes. His journeys to social "Bohemia" he mentions, you remember, jocularly to his daughter, and though his complete detachment from social convictions may be a little healthier than Tartufe's reiterated creed that the "scandale du monde est ce qui fait l'offense," and that "le mal n'est jamais que dans l'éclat qu'on fait," the frank parade, before his daughter, of that complete detachment is not a probable thing.

Of course, to set against this want of probability in great things and small, *Frou-frou* has merits of liveliness and of neat though not solid construction. These have already been elsewhere and amply dwelt upon. And the cast at the Gymnase is an interesting one, for Ravel, Pujol, and Mdme. Fromentin keep their old parts, of half-a-dozen years ago—no one but Ravel, with Ravel's peculiar lightness and saucy innocence in wickedness, could make Brigard endurable—and Mdlle. Delaporte, as the successor of Desclée, gives us another *Frou-frou* than that to whom we have been accustomed. M. Vitu has said of Mdlle. Delaporte that her countenance, "honest and saddened," must fail to realise the earlier *Frou-frou*; but "she won her hold upon the public by magnificent outbursts of passion in the third act and in the fourth." "She was enthusiastically applauded," he adds, "and the Gymnase, deprived, one by one, of Rose Chéri, of Victoria Lafontaine, Aimée Desclée, and of Blanche Pierson, has at last re-found an actress: one actress only: and that will perhaps be enough." But it will be well—we may add—to supply her ere long with a character more consistent than that of Gilberte, in a play more substantial and enduring than the firework comedy of *Frou-frou*.

Frederick Wedmore.

The Haymarket reopened its doors on Saturday evening, but with nothing new in the programme. At least there was nothing new in the way of pieces, our grandfathers having been familiar with *The Heir at Law*, and our fathers having made the acquaintance of *The Widow Hunt*. But in the way of interpretation there was a little that was fresh—Mr. H. B. Conway appearing for the first time as Dick Dowlas, and Miss Walton for the first time, we believe, as Cecily Homespun. Mr. Conway comes from the Lyceum, where during the last couple of years, an admirable stage *physique*, and some union of grace, impulse, and fire, have caused him to be remarked. He had excellent moments in the performance of *Richelieu*, and was pleasantly airy as Osric; and now his Dick Dowlas at the Haymarket must be pronounced spirited, picturesque and agreeable. Mr. Conway, may, or may not, develop a more marked and individual talent than any he has yet had the opportunity of showing. Time will prove, and we shall avoid prophecy; but the conditions of our stage are such that he has but few competent rivals in the line of parts in which we have hitherto seen him. Miss Walton, cast for Cecily Homespun, was sure of the stage success that always waits on intelligence, comeliness, and hearty good humour. But beyond this she achieved little, so that while she was accepted by the audience as a highly agreeable presence on the stage, she did not make us all forget the quaint and quiet old-world grace of the best Cecily Homespun—Miss Nellie Moore. Zekiel Homespun, too, was played in those times by Mr. Buckstone; Mr. Everill is now painstaking, yet simple, in the part. And Pangloss fell in those days to Mr. Compton, and was one of his best parts: all the dryness of pedantry being brought out with a humour supplied by the actor more than by the character. Mr. Clarke's Pangloss, now to be seen at the Haymarket, is as well-known to the public and is even more popular. The manner of the comedians is of course entirely different; the one dry, the other unctuous; the one contained, the other expansive; yet it is strange to see how much, notwithstanding this, the two performances have in common—how much of what we laugh at in each case is the result of stage traditions carefully preserved. The chief mental difference—if one can express it in a sentence—between the Dr. Pangloss of Mr. Compton and the Dr. Pangloss of Mr. Clarke is that the first is less occupied than the second with the enjoyment of his own surprising attainments, and more occupied with impressing other folk with the dignity those attainments confer. Mr. Compton quotes Shakspere, Ovid, and Horace, to compel attention, and step by step to establish authority. Mr. Clarke, quoting them, is happy in the treasures of his mind; too blissfully conscious of their value to be anxious as to the effect of their display. Mr. Howe is Lord Duberly, and Miss Emily Thorne his wife. Mr. Howe's performance is sagacious and discreet. Miss Thorne hardly succeeds in giving sufficient colour and variety to the part of the newly-made Lady. In the character of Caroline Dormer Miss Linda Dietz shows some refinement, if little spontaneity.

A second theatre reopened on Saturday—the Charing Cross, under the management of Mr. Field. *Dagobert*—an opéra-bouffe in three acts, the first of which was on Saturday night rather tediously long—would appear to be an adaptation of Hervé's *Alice de Nevers*, not the most successful of a series of operas nearly all of which seem inferior to the work of Lecocq. But as *La Fille de Madame Angot* cannot be forthcoming every day, and cannot, moreover, be played, even to its most faithful devotees, at every theatre in London, there is nothing to complain of in the production of *Dagobert*, save that one wishes *Dagobert* had been in some respects better worth producing. The story, told at the length to which it runs, has the air of being puerile; or, at the least, its progress is impeded by something too much of fooling—Mr. Odell's musical instrument, for instance, is very well at first, but there came a time, on Saturday night, when the audience did not seem to disagree with an opinion volunteered by a critic in the gallery, that they had had enough of it. Nor were the garments of Mr. Odell unanimously welcomed. The actor, though, on the whole, does service to the piece; his plaintive almost pathetic humour, being undoubtedly effective. Mr. Rosenthal is Dagobert—the monarch whose fickle loves form much of the story—and he is a comely and competent representative of that sovereign of opéra-bouffe. Miss Pattie Laverne brings heartiness of style, and a voice which would suit a larger theatre, to the part of Cunégonde, a country lass who divides the honours of a heroine's place with one "Fleur d'Amour," the affianced bride of Dagobert, played by Miss Burville—a very young lady, of some promise as a singer. Miss T. Lavis represents the

mother of Dagobert's bride, and Miss La Feuillade, from the Strand, is an agile page of opéra-bouffe. Some of the music was encored on Saturday. There are several pretty airs; but the entertainment—which was seldom brilliant—would have gained much by compression. Mr. Vandenbossche is the musical director.

The rehearsals of *Macbeth* commence this week at the Lyceum, and the end of the month is the time at present fixed for the performance of the play.

Drury Lane Theatre opens to-night with Mr. Boucicault's new Irish drama, *Shaughraun*. The scenery—always, as our readers know, a great feature at the large popular theatre—is by Mr. Beverley: and Miss Rose Leclerq, Miss Rose Cullen, Miss M. Dalton, Mr. Sinclair, Mr. David Fisher and Mr. Terriss, will support Mr. Boucicault in the performance of the piece.

The next Dickens performance promised at the Adelphi is not a new piece prepared for the Theatre, we hear, but a revival of the Olympic version of *Little Em'ly*, with Mr. Emery as Peggoty — an excellent performance this of Mr. Emery's, though it was not, when we saw it a year ago at the Marylebone Theatre, quite as good as his Captain Cuttle.

Next week will be the last of Mdlle. Beatrice's company at the Globe. That theatre will, we hear, afterwards be devoted to the performance of opéra-bouffe by a special company until the winter, when the noted troupe of Miss Lydia Thompson will return to the quarters where last season *Blue Beard* barely escaped immortality.

The Strand Theatre closed last Thursday, for repairs, pending the preparation of a new opéra-bouffe. Miss Gifford, who for several weeks has taken Miss Ada Swanborough's place, leaves London for Hull to take—the *Observer* says—a leading position in Mr. Sefton Parry's company there.

Mdme. Judic will return to Paris in a few days, when the rehearsals of the *Créole*, in which she is next to appear, will commence.

The Bouffes-Parisiens was to open on Wednesday last, with the *Jolie Parfumeuse*, with M. Daubray, Mdlle. Weill—a *débutante* who for two years has been training for opéra-bouffe—and Mdme. Théo.

Mdme. Théo has signed, says a Paris paper, an engagement at the Bouffes-Parisiens for three years, at about six hundred a year. And Mdme. Théo is considered among the best paid of Parisian actresses.

The Théâtre Français has given *Tartufe* for the first appearance of Mdlle. Samary. Apart from the success or failure of the *débutante*, the performance was a good one. Delaunay played Valère; Maubant, Cléante; Coquelin, M. Loyal; Mdlle. Reichemberg, Marianne; Mdlle. Joussain, Mdme. Pernelle; and Madeleine Brohan, Elmire. M. Talbot, who has essayed with little success the character of Tartufe, played on this occasion the dupe instead of the duper, and with far greater satisfaction to the audience. Tartufe was played by M. Dupont Vernon, who is making his way steadily to the front. M. Dupont Vernon's manner and *physique* make it impossible for him to realise the Tartufe of most men's imagination. Young, tall, thin, energetic, even passionate, his Tartufe can only be dark and sinister; not unctuous and flourishing. He is intelligent in the part, but the part can never fit him. And something of the same unsuitability is noticed in the Dorine of Mdlle. Samary. People ask why this young girl, distinguished in manner, elegant, and even brilliant, was set down for the most energetic and demonstrative of Molière's *soubrettes*, instead of for a modern part, more fitted to her appearance and talent. The answer is that the part was chosen by her for recitation at the Conservatoire, and that her performance of it got her the first prize for comedy, and led immediately to her engagement at the Théâtre Français. Nevertheless, it was felt at the Théâtre Français that Dorine was not her part. Dorine, to judge from the authority which she usurped and exercised for rightful ends enough, in Orgon's house, was a woman of ripe years as well as of complete confidence. Mdlle. Samary has the self-confidence, but not the maturity or the force, and though she delivers some of the dialogue with sufficient sharpness, she fails in authority and vigour when brought face to face with Tartufe, to mock him after the famous speech about that which his pretended piety "ne saurait voir;" and when Mdlle. Samary says to Tartufe,

"Vous êtes bien tendre à la tentation."

one feels it is a young girl who is flinging him the reply, and not a practised woman. Mdlle. Samary is to appear immediately in a part in modern high comedy, which was first played thirty years ago by her aunt, Augustine Brohan. In ten years time, say the good judges, she will be equal to Dorine.

MUSIC.

The Norwich Musical Festival commences on Monday, the 20th inst., in St. Andrew's Hall, and continues till Friday, the 24th. The list of principal vocalists engaged includes the names of Mdlle. Albani, Mdme. Lemmens-Sherrington, Mdlle. Mathilde Enequist, Mdlle. Anna de Belocca, Mdme. Patey, Miss Enriquez, and Messrs. Edward Lloyd, Henry Guy, H. J. Minns, J. L. Wadmore, and Signor Foli. The chief works announced for performance are Mendelssohn's *Elijah* and *Hymn of Praise*, Spohr's "God, Thou art great," a selection from Pierson's *Jerusalem*, Haydn's Imperial Mass, Rossini's *Stabat Mater*, Bennett's *Woman of Samaria*, and the *Messiah*, as sacred works; while at the evening concerts are to be given Randegger's *Fridolin*, Benedict's *Legend of St. Cecilia*, and part of his symphony in C, Macfarren's Festival Overture, Cowen's Grand March from *Joan of Arc*, and a new overture expressly composed for the occasion by Mr. W. T. Best. The festival will as usual be conducted by Sir Julius Benedict.

The Proceedings of the Musical Association for its first session 1874–75, have just been issued to the members in a neat volume of some 160 pages. An abstract of its contents will give those of our readers who are not members some idea of the amount and nature of the work done during the past season by the Association. The volume contains the papers read at the various meetings, viz.: "On Extending the Compass and Increasing the Tone of Stringed Instruments," by Dr. W. H. Stone; "On Temperament, or the Division of the Octave" (two parts), by Mr. R. H. M. Bosanquet; "On a Suggested Simplification of the Established Pitch Notation," by Mr. Sedley Taylor; "On the Application of Wind to Stringed Instruments," by Mr. J. Baillie Hamilton; "On the Fallacies of Dr. Day's Theory of Harmony; with a Brief Outline of the Elements of a New System," by Mr. C. E. Stephens; "On Musical Nomenclature," by Mr. Hullah; "On the Principles of Musical Notation," by Dr. Stainer; and "Illustrations of Just and Tempered Intonation," by Mr. A. J. Ellis. Reports are also given of the discussions which followed the readings of the various papers.

A new tenor, M. Valdéjo, a former pupil of the Conservatoire, made a very successful first appearance at the Opéra Comique, Paris, on the 21st ult., in *Zampa*. The *débutant* has been previously engaged at the opera at Liége, and is said to possess a fine voice and to be an excellent actor. For the same theatre M. du Locle, the director, has engaged as baritone M. Lucien Collin, a "premier prix d'harmonie" at the Conservatoire, and favourably known as a composer of songs. M. Collin has been for the last three years engaged as first cornet-à-piston in the orchestra of the Opéra Comique.

M. Massenet has just completed the composition of a three-act opera, entitled *Le Roi de Lahore*. The libretto is by M. Gallet.

The annual meeting of the Académie des Beaux-Arts is fixed for Saturday, October 9, when M. le Vicomte Delaborde, the perpetual secretary, will read a eulogium of Auber.

M. Gounod has just completed an oratorio, the libretto of which is written by the Abbé Freppel, the subject being taken from the life of St. Geneviève.

Antonino Marchisio, a talented composer and pianist, and brother of the singers Carlotta and Barbara Marchisio, has lately died at Turin at the age of fifty-eight years.

The fourth session of the General Association of German Musicians was held at Frankfort-on-Maine from the 17th to the 20th of August. The Association, which has only been in existence three years, already numbers more than 7,000 members, distributed among eighty local societies. The organ of the Association is the *Deutsche Musikerzeitung*, which is published at Berlin, and edited by Herr Hermann Mendel.

It is intended to produce at Vienna the whole series of Wagner's operas at the Hofoperntheater. The rehearsals are already in full progress. *Tannhäuser* is shortly to be given; and Herr Jauner, the director of the theatre, is in treaty with the managers of the Grand Opera at Paris with the view of obtaining the magnificent scenery which was prepared for the Paris representation of the work.

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